

August 28, 1998

Mr. Craig Zellar, RPM
U.S. Environmental Protection Agency
61 Forsyth St., SW
Atlanta, GA 30303

RE: Twelvemile Creek/Lake Hartwell
1998 Fish and Sediment Monitoring Report



Dear Mr. Zellar:

Attached please find one copy of the above referenced report. The 1998 data indicate significant findings in the reduction of PCB concentration in sediment, Corbicula, and fish tissue. These findings clearly indicate a reduction of PCBs in the Twelvemile Creek/Lake Hartwell system.

If you have any questions concerning these data, do not hesitate to contact me.

Regards,

A handwritten signature in black ink, appearing to read "James R. Orr".

James R. Orr
Senior Scientist

Enclosure
JRO/gsq

c: Butch Younginer
Cliff Kirchof
Brian Curtis

10115924



RMT, Inc
Stafford, Texas

Lake Hartwell 1998 Fish and
Sediment Study
*Operable Unit 2 ROD
Monitoring Program*

August 1998

Environmental Resources Management
7106 Crossroads Boulevard
Suite 228
Brentwood, Tennessee 37027

FISH AND SEDIMENT STUDY

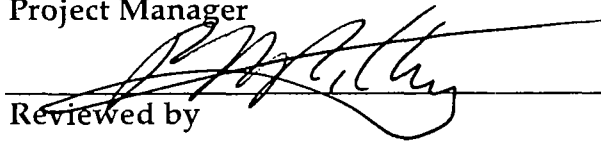
RMT, Inc
Stafford, Texas

Lake Hartwell 1998 Fish and
Sediment Study
*Operable Unit 2 ROD
Monitoring Program*

August 1998



Project Manager



Reviewed by

Environmental Resources Management
7106 Crossroads Boulevard
Suite 228
Brentwood, Tennessee 37027

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EXECUTIVE SUMMARY

A total of 153 fish samples, represented by largemouth bass, hybrid bass, channel catfish, bluegill, threadfin shad and gizzard shad were collected from six locations in Lake Hartwell during April and May 1998. Fish were analyzed for PCBs by SW-846 Method 8082 with the seven primary Aroclors reported. The locations included Twelvemile Creek (SV-107), Martin Creek (SV-106), Eighteenmile Creek (SV-532), Andersonville Island (SV-535), Tugaloo River (SV-641), and the Lake Hartwell Dam (SV-642).

Standard fillets were taken from large individual fish (largemouth bass, hybrid bass, and channel catfish) and analyzed for PCBs while forage species were analyzed as whole body composites. A standard fillet as defined by the U.S. FDA is a scaled, skin-on fillet that includes the rib cage (skin was removed from the catfish fillets).

Largemouth bass, hybrid bass and channel catfish in Lake Hartwell continue to have PCB concentrations above the USFDA's recommended tolerance level of 2.0 ppm at selected sites. The highest level of contamination continues to occur in the Seneca River Arm of Lake Hartwell in the vicinity of the Twelvemile Creek embayment. At this station (SV-107), largemouth bass had mean total PCB concentrations of 8.69 ppm while the highest mean value for catfish was found at SV-106 at 2.53 ppm. The highest level of PCB in hybrid bass occurred at station SV-532 where the mean total PCB concentration was 3.58 ppm.

Forage fish indicated levels greater than 2.0 ppm in whole body tissues in four of the nine composite samples. The highest concentrations of PCBs were detected in blue gill, with the mean total PCBs detected at 4.08 ppm at station SV-107. The concentration of PCBs in gizzard shad at Station SV-107 was 3.09 ppm. The concentration of PCBs was significantly lower from station SV-107 to SV-532 to SV-641 in the forage fish species, and significantly lower than the 1997 data.

There continues to be a decreasing gradient of PCB contamination in largemouth bass and channel catfish from the Twelvemile Creek embayment to the dam. The concentration of PCBs in hybrid bass do not indicate as significant of a decreasing gradient. This is most probably due to hybrid bass being migratory fish and spending time in various areas of the lake. The PCB concentration detected in hybrid bass at station SV-107, SV-535, SV-641, and SV-642 is generally less than at SV-106 and SV-532.

The generally lower PCB concentration in hybrid bass at station SV-107 may be due to the movement of hybrids into the Keowee River, where PCBs have been detected at lower concentrations in the past.

The nine-year trend evaluation indicates that PCB concentrations in largemouth bass are declining at SV-107, while remaining relatively similar at the other five sites in the study. Average tissue concentrations were above 2.0 ppm at SV-107 and SV-106. Decreases were observed in largemouth bass tissue at stations SV-535 and SV-642 over the 1997 values with slight increases observed at the other stations. The data also indicate that PCB concentrations in channel catfish increased at only one station, SV-106, from 1997 to 1998. Station SV-106 was also the only location with a mean PCB value greater than 2.0 ppm. Two of the four catfish collected from station SV-106 had PCB concentrations of 3.0 ppm or greater while no other catfish at any location had a PCB concentration greater than 2.0 ppm.

Due to the migratory habits of the hybrid bass, increasing or decreasing trends in PCB concentrations are generally not observed. However, the 1998 values appear to be reduced from 1997, particularly at stations SV-107 and SV-532. While the PCB concentrations in hybrid bass are greater than 2.0 ppm at all stations, there is also a downward trend at all stations. There are few clear trends, however, within these species at each site. The concentration of PCBs significantly decreased in bluegill at SV-107, from 1997 to 1998 and to a lesser extent at SV-532 and SV-641. The PCB concentrations in threadfin shad increased at stations SV-532 and SV-641 from 1997 to 1998, but concentrations were not above the four-year high. The concentration of PCBs in gizzard shad decreased at all three stations to the lowest values in the past four years. Forage fish (bluegill, threadfin shad, and gizzard shad) have been sampled consistently for the past four years, 1995-1998. These data indicate a consistent decrease in PCB with distance from the Twelvemile Creek Arm.

PCB concentrations were analyzed in sediment samples from 21 stations throughout the study area, including the Twelvemile Creek watershed (six locations) and Lake Hartwell (ten locations in the Twelvemile Creek and Seneca River Arm and five in the main body of the lake.) Composite samples of sediment were collected across the channel at each station with a ponar dredge (sampling approximately the top six inches of sediment) in the lake, while grab samples from depositional areas of fine silt material were collected in the creek stations. Both PCBs and total organic carbon (TOC) were analyzed from each sample in order to determine the correlation between PCB concentrations and organic material in the sediment. In general, the PCB concentrations in sediment were

significantly lower in 1998 than 1997 and the lowest in the last four years for many stations

The highest concentration of PCBs was detected at stations SD-009 and SD-011 (2.83 ppm), which is approximately 60 ppm lower than the 1997 maximum values. The concentration detected at SD-013, historically the station with the highest PCB values, was 2.25 ppm. A total of 13 of the 20 locations were lower in PCB concentrations during 1998 than 1997, while four of the 20 were non-detect and three were slightly higher. The PCB concentrations tended to decrease in both upstream and downstream directions from SD-011. In general, the total organic carbon (TOC) content at each station was also lower than previous years.

The TOC data identify a number of depositional areas including SD-009, SD-011 through SD-013, SD-106, and generally SD-535, SD-641, and SD-642. The TOC was significantly lower at SD-642 than historic values. These lower TOC values may explain the lower sediment PCB concentrations.

A 28-day *Corbicula* study was conducted at seven locations in the Twelvemile Creek area. Approximately 50 *Corbicula* were placed in baskets at each of the seven locations in Twelvemile Creek and analyzed for PCBs following the 28-day incubation period. *Corbicula* from Wolf Creek were used as reference organisms where a concentration of 0.225 ppm was detected. The concentration of PCBs ranged from 0.136 ppm at the upstream control site in Town Creek (C-O) to 2.88 ppm in Twelvemile Creek at the Highway 137 Bridge (duplicate). The concentration of PCBs in *Corbicula*, located downstream of the Sangamo Weston facility in Town Creek, was 2.14 ppm. This is significantly down from the 7.59 ppm detected in 1997.

Corbicula have been analyzed for four consecutive years. The trends indicated by these data are: 1) generally low background concentrations of PCBs in Town, Wolf, and Twelvemile Creeks, 2) relatively similar levels of bioaccumulation at stations downstream of the facility (C-1, C-3, C-5, and C-6), and 3) significantly lower concentrations in 1998

INTRODUCTION

During 1976, the South Carolina Department of Health and Environmental Control (SCDHEC) and the United States Environmental Protection Agency (U.S. EPA) discovered that fish from certain areas of Lake Hartwell (Anderson, Pickens and Oconee Counties) were contaminated with polychlorinated biphenyls (PCBs). This contamination was above the safe tolerance level for consumption of fish by humans established by the United States Food and Drug Administration (USFDA). Subsequent to these findings, a fish consumption advisory was issued for portions of Lake Hartwell as a conservative measure to reduce human exposure.

The SCDHEC has conducted yearly studies in Lake Hartwell since 1976 to evaluate the level of PCB contamination in fish. The primary focus of these studies has been to gather current PCB data for yearly updates in the fish consumption advisory. Annual results are available through 1993. During 1990, portions of Lake Hartwell became eligible for Superfund clean-up funds under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. As a part of the June 1994 Final Record of Decision (ROD), aquatic biota monitoring and sediment sampling were required. The aquatic biota monitoring primarily includes a comprehensive fish tissue study, which involves fish tissue sampling similar to the historic annual monitoring by the SCDHEC.

Summarized in this report are the results of the 1998 fish tissue, *Corbicula*, and sediment study of Lake Hartwell. In addition, the fish tissue data collected by the State of South Carolina, Savannah District Corps of Engineers, and ERM from 1990 to present are included in bar charts to identify trends in PCB concentrations.

METHODS

Fish, sediment, and *Corbicula* sampling was conducted in accordance with the procedures prescribed in the Final Record of Decision dated June 1994, and in coordination with SCDHEC, the Savannah District Corps of

Engineers and U.S. EPA Region IV. Mr. Butch Younginer of SCDHEC, Mr. Andy Gaston of the Savannah COE as well as the South Carolina Fish and Game Commission were notified prior to sampling. Representatives from each agency did not request to participate in the sampling. Fish selected included: largemouth bass (*Micropterus salmoides*), hybrid bass (*Morone sp.*), channel catfish (*Ictalurus punctatus*), bluegill (*Lepomis macrochirus*), gizzard shad (*Dorosoma cepedianum*) and threadfin shad (*Dorosoma petenense*). A total of eight striped bass (*Morone saxatilis*) and one white bass (*Morone chrysops*) were substituted for hybrid bass due to the lack of an adequate size of hybrid bass at some stations.

Fish were collected from April 13 through April 24 by electrofishing and gill netting techniques. Fish were kept on wet ice from the time of sample collection to dissection. After sample collection, fish weight (g) and length (mm) were measured and recorded in a logbook prior to fillet collection. Data recorded for each sample included species, location, weight, length, date, sex, grab or composite sample type, and sample number. Fillets were collected with a pre-cleaned stainless steel fillet knife.

Prior to fillet sampling, fish were placed on a table covered with clean sheets of aluminum foil. Foil was changed between fish species and stations. All fillets and whole fish samples were wrapped in aluminum foil (dull side to the tissue), placed in a zip-lock or plastic bag, labeled and placed on ice. Samples were sent to the analytical laboratory on wet ice, rather than frozen, to facilitate sample preparation and reduce sample handling. Fat deposits and viscera were removed from each fillet rib cage prior to wrapping of the sample. Sample collection was conducted in the field at various sample locations. The sampling equipment was decontaminated with detergent wash, deionized water rinse, pesticide grade isopropanol rinse, and deionized water rinse between each species and station. Equipment rinse blank and trip blank samples were collected every 20 samples. One in 20 samples were identified for duplicate analysis and split from the sample in the laboratory after grinding. The size class range of fish included:

largemouth bass	1.5-3.0 lbs (682-1,364 g)
channel catfish	1.5-4.0 lbs. (682-1,818 g)
hybrid bass	3.0-5.0 lbs. (1,364-2,273 g)
bluegill	3-5 inches (76-127 mm)
gizzard shad	>12 inches (>305 mm)
threadfin shad	>3 inches (>76 mm)

Fish were sent overnight by Federal Express to Northeast Analytical Laboratory Services (NEA) in Schenectady, New York, a South Carolina-certified laboratory. The fish samples were received at 4° centigrade.

Sediment samples were collected with a petite ponar dredge on April 22 through April 24, 1998. Rainfall had been heavy during April and both Town Creek and Twelvemile Creek were higher than normal. The dredge has a six inch by six inch opening. In soft sediments, it will collect to a depth of approximately six inches. Five grab samples were collected across the channel (typically bank to bank) at each open water location, and individual grab samples were collected in the Twelvemile Creek stream locations. Composite samples were thoroughly mixed in an aluminum container prior to sampling with a clean stainless steel spoon. Each sample consisted of two four-ounce glass jars. Samples were immediately placed on ice through sample delivery.

The ponar, an aluminum container used for mixing the composite samples, and stainless steel spoons were decontaminated between sample locations using a detergent wash, deionized rinse, pesticide grade isopropanol rinse, and another deionized rinse. Equipment rinse blank and trip blank samples were collected each day with the sediment samples, and two duplicates were collected for a total of 23 sediment samples. Samples were shipped on ice overnight to NEA. Both fish and sediment samples were analyzed by SW-846 Method 8082 for PCBs.

A total of seven sample locations were utilized for the analysis of bioconcentration of PCBs in *Corbicula* tissue. Reference organisms were collected from Wolf Creek and transported the same day to the other test locations.

Corbicula from Wolf Creek were utilized because of the low PCB concentrations detected at this location in the past, the great abundance of *Corbicula* at this location, and the reduction in handling time believed to have resulted in a number of mortalities during 1995. *Corbicula* were retrieved after 28 days of incubation (April 24 through May 21, 1998), placed in labeled plastic bags, and stored directly on ice. Baskets were collected from each site with no mortalities noted.

Organisms were transported to the ERM laboratory on ice and then frozen. After freezing to euthanize the *Corbicula*, samples were shipped to NEA for dissection and analyses.

FISH

Sampling locations were selected to coincide with previous Lake Hartwell sample collections. The six fish tissue sampling locations are depicted on Figure 1. Also illustrated in Figure 1 are the mean PCB concentrations for the three filleted fish species sampled during 1998. Figures 2 and 3 depict the sediment sample locations in Lake Hartwell and the Twelvemile Creek watershed, respectively. Included in Figures 2 and 3 are the PCB concentrations detected during the 1998 sampling period. Provided in Table 1 is the summary of the 1998 Fish Tissue Study results with the analytical data sheets provided in Appendix A. Included in Table 1 are the sample number, sample date, sampled species, length, weight, sex and PCB concentration. The breakdown of the specific Aroclors for each fish sample are summarized in Table 2. These data indicated the presence of Aroclor 1254 and 1260. Presented in Table 3 are the PCB concentrations in each largemouth bass collected from each location, as well as the mean and standard deviation for each station. The mean data are also graphically depicted on this table to illustrate the trends in mean concentrations between stations. Similar information is presented in Tables 4 and 5 for hybrid bass and channel catfish, respectively. These data are summarized for bluegill, threadfin shad and gizzard shad in Table 6.

The PCB concentrations exceeded the 2.0 ppm FDA tolerance level in largemouth bass fillets at two of the six locations. The mean values at stations SV-107 and SV-106 were 8.69 ppm and 4.05 ppm, respectively. The PCB concentrations were less than 0.4 ppm at stations SV-641 and SV-642. The 2.0 ppm FDA limit was exceeded in six of the six stations by hybrid bass fillets. The maximum mean value was detected at SV-532 (3.58 ppm), and the lowest mean value was detected at the station nearest the dam, station SV-642 (2.04 ppm). The FDA limit was exceeded at station SV-106 only in catfish fillets with a mean value of 2.53 ppm. The PCB concentrations in all other locations were less than 2.0 ppm in catfish fillets.

The mean PCB concentration in whole tissue samples of forage fish (Table 6) indicates various degrees of bioaccumulation with four of the nine samples greater than 2.0 ppm. Unlike previous studies, the concentration detected in gizzard shad was lower than in either bluegill or threadfin shad, with one exception (gizzard shad were higher than blue

Table 7 Lake Hartwell OU2 Sediment Sampling Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g								Total		TOC ug/g
		1016	1221	1232	1242	1248	1254	1260	PCB - µg/g			
SD000	4/24/98	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	0	2,400		
SD001	4/24/98	< 0.142	< 0.142	< 0.142	< 0.142	< 0.142	< 0.142	< 0.142	0	1,500		
SD002	4/24/98	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	0.229	< 0.138	0.229	1,400		
SD003	4/24/98	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	0	2,000		
SD004	4/24/98	< 0.153	< 0.153	< 0.153	0.274	< 0.153	0.490	< 0.153	0.764	2,300		
SD005	4/24/98	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	0	<1,300		
Dup 2 (005)	4/24/98	< 0.151	< 0.151	< 0.151	0.403	< 0.151	0.558	< 0.151	0.961	2,400		
SD006	4/22/98	< 0.141	< 0.141	< 0.141	0.255	< 0.141	< 0.141	< 0.141	0.255	1,500		
SD007	4/22/98	< 0.142	< 0.142	< 0.142	< 0.142	0.283	< 0.142	< 0.142	0.283	5,100		
SD008	4/22/98	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	0	1,500		
SD009	4/22/98	< 0.285	< 0.285	< 0.285	0.738	< 0.285	1.340	0.334	2.41	23,000		
Dup 1 (009)	4/22/98	< 0.290	< 0.290	< 0.290	1.70	< 0.290	1.13	< 0.290	2.83	29,000		
SD010	4/22/98	< 0.257	< 0.257	< 0.257	1.03	< 0.257	1.02	< 0.257	2.05	18,000		
SD011	4/22/98	< 0.343	< 0.343	< 0.343	1.66	< 0.343	1.17	< 0.343	2.83	29,000		
SD012	4/22/98	< 0.479	< 0.479	< 0.479	1.45	< 0.479	1.08	< 0.479	2.53	35,000		
SD013	4/22/98	< 0.344	< 0.344	< 0.344	1.69	< 0.344	0.561	< 0.344	2.25	25,000		
SD014	4/22/98	< 0.344	< 0.344	< 0.344	0.906	< 0.344	0.406	< 0.344	1.31	21,000		
SD015	4/23/98	< 0.291	< 0.291	< 0.291	0.712	< 0.291	0.320	< 0.291	1.03	25,000		
SD106	4/23/98	< 0.425	< 0.425	< 0.425	0.514	< 0.425	< 0.425	< 0.425	0.514	32,000		
SD532	4/23/98	< 0.209	< 0.209	< 0.209	0.425	< 0.209	0.456	< 0.209	0.881	25,000		
SD535	4/23/98	< 0.274	< 0.274	< 0.274	< 0.274	< 0.274	< 0.274	< 0.274	0	24,000		
SD641	4/23/98	< 0.215	< 0.215	< 0.215	< 0.215	< 0.215	< 0.215	< 0.215	0	29,000		
SD642	4/23/98	< 0.247	< 0.247	< 0.247	< 0.247	< 0.247	< 0.247	< 0.247	0	13,000		

TOC Total Organic Carbon

Table 8 Lake Hartwell OU-2 Study 1998 Corbicula Tissue Analysis
RMT, Inc., Stafford, Texas

Station No.	Aroclor Identification and PCB Concentration (µg/g)									
	1016	1221	1232	1242	1248	1254	1260	Total		
C-0: Town Creek upstream of Sangamo Weston	< 0.114	< 0.114	< 0.114	< 0.114	0.136	< 0.114	< 0.114	0.136		
C-1: Town Creek downstream of Sangamo Weston	< 0.241	< 0.241	< 0.241	< 0.241	2.14	< 0.241	< 0.241	2.14		
C-2: Twelvemile Creek upstream on Town Creek	< 0.119	< 0.119	< 0.119	< 0.119	0.175	< 0.119	< 0.119	0.175		
C-3: Twelvemile Creek at Algood Bridge	< 0.248	< 0.248	< 0.248	< 0.248	2.56	< 0.248	< 0.248	2.56		
C-4: Wolf Creek	< 0.123	< 0.123	< 0.123	< 0.123	0.225	< 0.123	< 0.123	0.225		
C-5: Twelvemile Creek at 137 Bridge	< 0.249	< 0.249	< 0.249	< 0.249	1.81	< 0.249	< 0.249	1.81		
C-5: Duplicate	< 0.244	< 0.244	< 0.244	< 0.244	2.88	< 0.244	< 0.244	2.88		
C-6: Twelvemile Creek at Maw Bridge (Hwy 337)	< 0.235	< 0.235	< 0.235	< 0.235	2.10	< 0.235	< 0.235	2.1		

Hartwell ranged from less than 0.142 ppm to 0.961 ppm (duplicate of SD-005), with less than 0.142 ppm reported directly downstream of the Sangamo Weston outfall (SD-001). This value indicates a significant decrease from all previous values. A value of less than 0.153 ppm was reported for the station upstream of the outfall in Town Creek (SD-000). The PCB concentrations also declined in a downstream direction from the maximum value in the Twelvemile Arm (SD-011) to concentrations less than 0.215 ppm near the dam and in the Tugaloo River Arm. In addition to the total PCB values given in Table 7, the various PCB Aroclors are identified for each sample. Aroclors identified in the sediment, in descending order of concentration and occurrence primarily include: 1242, 1254, 1260, and 1248. Aroclors 1232, 1221, and 1016 were not detected in the sediment. This combination of Aroclors and their prominence in the samples is significantly different from the 1997 samples where 1232 was previously the most abundant Aroclor in samples and 1242 and 1260 were not observed. Provided in Figure 10 are the results of sediment analyses for the past four years of data collection. Figure 10 generally illustrates the deposition of PCBs in the Twelvemile Creek/Lake Hartwell system. The highest concentrations of PCBs are found in the lower end of the Twelvemile Creek Arm (SD-009 through SD-013). These data indicate significant decreases in PCBs in sediment over 1997.

The TOC values for all sediment samples range from less than 1,300 at SD-005 to 35,000 ppm at SD-012. The TOC values are significantly less than the 1977 data and may explain differences in the PCB concentrations detected. Stream sediment samples were collected during relatively high stream flow. This may account for some lower TOC and PCB values.

3.3

CORBICULA

The analytical results of the seven *Corbicula* samples are summarized in Table 8 and illustrated in Figure 11. Analytical Data Sheets are provided in Appendix C. Of the seven specific Aroclor compounds reported by the analytical method, only one was detected in the *Corbicula* tissue. The Aroclor detected was 1248, which was the only Aroclor detected in each of the seven samples. The *Corbicula* results are also graphically presented in Figure 12 for the four sampling events 1995 to 1998. At present these data do not indicate definitive trends in the results. The highest concentrations of PCBs were detected in *Corbicula* tissue downstream of the Sangamo Weston facility in Twelvemile Creek at Highway 137 Bridge (C-5) at 2.88 ppm in the duplicate sample. The concentration in *Corbicula* downstream of the Sangamo Weston outfall was significantly less than in 1997 (7.59 ppm) with a four-year low of 2.14 ppm detected for this location. The PCB concentration in *Corbicula* tissue at the Twelvemile Creek background

location (C-2) was 0 175 ppm, while the concentration in the Town Creek background station was similar at 0 136 ppm. All PCB concentrations in *Corbicula* were significantly less than the four previous surveys.

4.0 DISCUSSION

4.1 FISH

The 1998 OU2 Fish Study results indicate that the PCB concentrations were generally lower with increased distance from the Twelvemile Arm of Lake Hartwell in largemouth bass, channel catfish and forage fish and decreased with time. The concentrations detected in hybrid bass were also lower in the three stations, which were the greatest distance from Twelvemile Creek (SV-535, SV-642, and SV-641) as well as at SV-107. Forage fish also appear to have localized levels of contamination similar to largemouth bass and channel catfish with the highest PCB concentrations in forage fish detected in the Twelvemile Creek Arm and significantly lower levels at stations downstream of Twelvemile Creek. The 1998 fish results indicate a reduction in the PCB concentrations in largemouth bass and channel catfish at most stations from the period 1990 through 1998. Stations SV-532, SV-535, SV-641 and SV-642 indicated mean PCB concentrations in largemouth bass and catfish less than 2.0 ppm for this period. Station SV-106 was also less than 2.0 ppm for channel catfish. The PCB concentration in catfish at SV-106 was above 2.0 ppm during the 1998 survey, however, the PCB concentration was less than 2 0 ppm at SV-107 (Twelvemile Creek) during 1998. The PCB concentrations in hybrid bass exceeded the 2.0 ppm FDA limit at all stations in 1998 with the highest concentration detected at SV-532. The PCB concentrations in hybrid bass are lower at the three stations farthest from Twelvemile Creek as well as SV-107. The gizzard shad are beginning to indicate a pattern of both spatial and temporal decreases in PCB concentrations. The 1998 data indicate significant decreases in PCB concentrations in gizzard shad. The 1998 bluegill values were lower at all stations than the 1997 values but were generally higher than the 1996 and 1995 values. PCBs in threadfin shad indicate no definitive trends.

4.2 SEDIMENT

The results of the sediment analyses indicate that PCB concentrations in shallow stream sediments were highest in the area of the lower

Twelvemile Creek Arm of Lake Hartwell A comparison of the 1998 results to the historic values discussed in the 1993 RI Report, show the concentrations of PCBs to have decreased significantly in the upper Twelvemile Creek area, particularly Town Creek, indicating a flushing of this area. Concentrations detected in other portions of Twelvemile Creek and in tributaries below Town Creek were significantly lower than the historic values. In the lower Twelvemile Creek area, PCB concentrations generally range from less than 0.145 to 2.83 ppm. Those values were similar or lower than historic findings and in some cases significantly lower. The Upper Twelvemile Creek Arm includes approximately the upper four miles of impounded waters of Lake Hartwell. This is one of the most heavily sampled areas of the lake to date. The concentration of the five surface sediment composite samples of this area ranged from less than 0.141 ppm to 2.41 ppm. These values were much less than those reported by the State and EPA from 1976 through 1985, which ranged from 1.7 ppm to 48.0 ppm, and those reported by ERM in 1995, which ranged from 0.943 ppm to 8.46 ppm. Germann (1988) indicated PCB surface sediment concentrations ranging from 5 to 50 ppm for this area. The 1998 data indicate that the PCB concentrations in surficial sediments of the Upper Twelvemile Creek Arm were reduced from historic levels and are approximately half of the 1997 values.

The Middle Twelvemile Creek Arm extends from Maw Bridge to the Highway 133 bridge. Two samples were collected in the area during the 1998 survey with values of 2.53 and 2.83 ppm PCBs detected. Historic PCB concentrations have ranged from 0.84 to 64.3 ppm (1986 through 1988). The Phase I and II sampling of 1991 indicated concentrations ranging from 0.16 to 6.48 ppm in 45 samples. A review of the 1991 data indicates that the 1998 concentrations in this area are less than historic high values of 1995 values of 10.7 and 16.0 ppm as well as lower than the 1997 values of 4.12 and 6.51 ppm.

The lower Twelvemile Creek Arm area (Highway 133 to Highway 123) typically has the highest concentrations of PCBs. The one sample (SD-013, 2.25 ppm) was significantly lower than the concentrations detected in 1995, 1996, and 1997 (8.26 to 23.3 ppm). Historic concentrations at this location have ranged from 0.39 to 55.62 ppm with maximums of 12.03 ppm and 55.62 ppm detected in 1977 and 1985, respectively. The Phase I and II data of 1991 indicate concentrations ranging from 0.16 to 11.51 ppm, indicating a similar phenomenon of downstream migration and settling, as observed in the Middle Twelvemile Creek Arm.

The Seneca River Arm/Upper Hartwell Lake area (Highway 123 to Highway 37) was sampled in 1998 at two locations, one near the upper end (SD-014) and one at the lower end of this reach (SD-015).

Concentrations of 1.31 ppm and 1.03 ppm, respectively, were recorded at these locations. Historic sampling indicates that concentrations have ranged from 0.01 to 14.26 ppm, while Phase I and II sampling indicate ranges of concentration from 0.04 to 5.26 ppm. The PCB concentrations in this area of the lake appear to have steadily decreased since the beginning of the sampling program. The concentration detected at SD-014 in 1998 is similar to the 1997 value, while the 1998 SD-015 value is approximately one half of the 1997 value.

Sediment sampling in the lower section of Lake Hartwell in 1998 included five stations, which correspond to the fish sampling locations SD-106, SD-532, SD-535, SD-641, and SD-642. The PCB concentrations ranged from 0.881 ppm at SD-532 to less than 0.215 at SD-641 in the Tugaloo River Arm. A concentration of less than 0.247 ppm was detected near the dam at SD-642. The historic sampling data do not appear to reflect many locations which correspond to the above locations. Specific locations which have been sampled in the past include SD-106, which was sampled by SCDHEC in 1976. The range of concentrations determined in 1976 at SD-106 was 0.01 to 6.59 ppm, with concentrations ranging from 0.15 to 1.74 ppm during the 1994 Phase I study. The concentration detected during 1998 appears to fall in the lower end of this range (0.574 ppm).

Similar to Phase I sampling, (1991), PCBs were reported below levels of detection in the Tugaloo River Arm in 1998 (less than 0.215 ppm). The concentration detected at SD-535 (confluence of the Seneca and Tugaloo River Arms) was higher in the 1995 study (1.83 ppm) than in 1991 or 1996 where maximum values of 0.52 ppm and less than 0.470 ppm were detected, respectively. During the 1998 study a value of less than 0.274 ppm was detected which appears to be significantly lower than the 1997 value. The concentration of PCBs at Hartwell Dam (SD-642) has been detected as high as 15 ppm in the mid 1980s. During 1991, 1995, 1996, 1997, and 1998, however, PCB concentrations have been below 1 ppm.

4.3

CORBICULA

Results of the *Corbicula* study appear to begin to indicate a pattern of reduction in PCB concentrations from 1995 through 1998. One clear pattern is the detection of PCB at concentrations above background at four locations (C-1, C-3, C-5, and C-6) and at low to insignificant concentrations at background locations (C-0, C-2, and C-4). While the concentration at most locations was greater in 1996 than in 1995. The 1997 values are generally less than the maximum values of 1995 or 1996. The 1998 values are significantly lower than previous values. Overall, the PCB concentration tends to decrease in a downstream direction from the

Sangamo Weston Outfall. Background concentrations indicate that PCBs are slightly accumulated upstream from Sangamo Weston in both Twelvemile and Town Creeks

5.0

DATA QUALITY

Samples of fish and *Corbicula* tissue and sediment were analyzed for PCBs from the Sangamo Weston OU2 study area. The analytical method used was EPA SW-846, Method 8087. Fish and sediment samples were collected from April 13 to April 24, 1998, while *Corbicula* were collected May 21, 1998. Analyses of fish and sediment were performed by Northeast Analytical, Inc. (NEA) from April 30 to May 18, 1998, while *Corbicula* were analyzed on June 24, 1998 by NEA. Quality assurance samples were collected in the field and submitted for analysis. Quality assurance samples included field prepared duplicates for sediment at a rate of one per ten samples collected. Equipment rinsate, and field blanks were collected for both fish and sediment samples at a rate of one per 20 samples collected. Duplicates of fish tissue and *Corbicula* were split in the laboratory. All samples were delivered overnight to the laboratory under chain of custody by Federal Express. All chain of custody records were found to be complete. Sample preservation requirements for PCB analysis (temperature less than or equal to 4°C) were maintained. During this sampling event, fish tissue, sediment, and water samples were kept on ice prior to transport.

EPA and SCDHEC require that PCB samples are extracted within 365 days following collection and analyzed within 40 days following extraction. No samples exceeded the allowable holding time

The seven Aroclors specified under Method 8082 were reported for each sample analyzed. The practical quantitation limit (PQL) was specified for each Aroclor and sample combination. The PQLs ranged from 0.112 to 1.12 ppm for fish tissue, 0.138 to 0.479 ppm for sediments, and 0.114 and 0.249 for *Corbicula*. The PQLs specified above are within the same range as the estimated quantitation limit (EQL) for high concentration soils and sludges referenced in Method 8082.

QA/QC analytical results are included in Appendix D. PCBs were not present in any of the equipment rinsates or trip blanks at a PQL of 0.050 to 0.056 ppb. This range of PQL is less than the Method 8082 EQL of 0.065 ppb. This indicates the presence of PCBs was not due to equipment contamination.

Two sediment, one *Corbicula*, and eight fish tissue samples were submitted in duplicate for analysis. The results indicated very good precision for the combined sample collection and analysis procedure. There is no guideline for an acceptable level of precision for the combined sample collection and analysis of duplicate samples for PCBs. The relative precision, however, of most duplicate samples tested was less than 31% and generally less than 10%, which indicates good precision. One exception was sediment sample SD-005 where the sample value was 0.961 ppm and the duplicate value was 0.255 ppm. The difference in these values is partially explained by the TOC value, which was much higher in the SD-005 sample than the SD-005 duplicate. It is speculated that a higher concentration of organic material was utilized in the sample, which had a higher PCB content.

Laboratory quality control procedures included the addition of surrogate standards prior to analysis, the analysis of a duplicate and matrix spike on selected samples, and the analysis of method blanks. In accordance with Method 8082 procedures, two surrogate standards (tetrachloromethaxylene and dichlorobiphenol), were incorporated into all samples analyzed. The percent recovery of these surrogates were the limits set by the method. The recovery limits set by method 8082 range from 60% to 130%.

Laboratory duplicates (duplicates of the samples) were prepared and analyzed on six samples. The percent differences for total PCBs ranged between 5.81% and 36.8%. The agreement between these values is very good and is indicative of good precision in the data with the exception of one elevated value, which the laboratory explained as corresponding peaks in the sample.

Laboratory matrix spike samples and duplicates of the matrix spikes (MSD) were prepared and analyzed on the same ten samples. The percent recoveries for total PCBs ranged between 93.7% and 132%. These recoveries are most favorable as compared to the recoveries referenced in Method 8082 and are indicative of good accuracy in the data. The matrix spike duplicate sample recoveries were elevated in some samples due to corresponding peaks in the sample.

Laboratory control spikes were prepared and analyzed on ten samples. The percent recoveries for the Laboratory control spikes ranged from 86.5% to 122%. The agreement between the amount spiked and amount recovered was within acceptable recovery rates. The recovery rates are indicative of good precision in the data.

A total of 12 laboratory method blanks were analyzed. PCBs were not detected in any method blank. The maximum PQLs for the method

blanks were 0.05 $\mu\text{g/L}$ (ppb) for water samples and ranged from 0.112 $\mu\text{g/g}$ (ppm) to 0.118 $\mu\text{g/g}$ for solid samples.

Table 1 OU2 Fish Study - Field Data and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-107-01	4/14/98	lmb	381	800	m	6 88
SV-107-02	4/14/98	lmb	351	600	f	10 8
SV-107-03	4/14/98	lmb	400	950	f	12 4 / 8 6d
SV-107-04	4/16/98	hb (sb)	480	1400	m	3 88
SV-107-05	4/16/98	hb (sb)	475	1450	m	1 89
SV-107-07	4/16/98	hb (wb)	420	1100	f	4.53
SV-107-08	4/14/98	cc	410	650	f	0 581
SV-107-09	4/14/98	cc	405	550	f	1 22
SV-107-10	4/14/98	cc	445	800	f	1 61 / 1 26d
SV-107-11	4/14/98	cc	415	600	f	1 46
SV-107-12	4/14/98	gs	300-350	300-400	u	3.09
SV-107-13	4/14/98	bg	135-205	400	u	4 08
SV-107-15	4/15/98	lmb	360	610	f	2 74
SV-107-16	4/15/98	lmb	320	460	f	3 39
SV-107-17	4/15/98	lmb	335	580	m	6 38
SV-107-18	4/16/98	lmb	410	840	f	5 37
SV-107-19	4/16/98	lmb	411	980	f	12 7
SV-107-20	4/16/98	lmb	404	900	m	10 9
SV-107-21	4/16/98	lmb	371	670	m	17 2
SV-107-22	4/16/98	hb	510	1920	m	3 91
SV-107-23	4/16/98	ts	100-150	150	u	3 83
SV-107-24	4/22/98	hb	480	1650	m	2 68
SV-107-25	4/22/98	hb	450	1550	f	1 12
SV-107-26	4/22/98	hb	470	1750	f	1 51
SV-107-27	4/22/98	hb	450	1550	f	1 67
SV-107-28	4/23/98	hb	490	1900	f	0 971
SV-107-29	4/23/98	hb	495	1950	f	2 46

lmb - Largemouth Bass
hb - Hybrid Bass
cc - Channel Catfish
ts - Threadfin Shad
gs - Gizzard Shad
bg - Bluegill
sb - Stripped Bass

wb - White Bass
f - Female
m - Male
u - Unknown
a - Combined Average
t - Combined Total
d - Duplicate

Table 1 OU2 Fish Study - Field Data and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-106-01	4/14/98	lmb	410	975	m	4 55
SV-106-02	4/14/98	lmb	390	850	f	5 27
SV-106-03	4/14/98	lmb	344	550	m	4 13
SV-106-04	4/14/98	lmb	350	600	m	4 12
SV-106-05	4/14/98	lmb	382	750	m	4 59
SV-106-06	4/14/98	lmb	462	1350	f	4 54
SV-106-07	4/14/98	lmb	320	500	f	2 25
SV-106-08	4/14/98	lmb	428	950	f	3 68
SV-106-09	4/14/98	lmb	435	1100	f	3 82 / 4 63d
SV-106-10	4/14/98	lmb	384	750	f	4 58
SV-106-11	4/14/98	cc	430	800	f	3 01
SV-106-12	4/14/98	cc	420	650	m	4 3
SV-106-13	4/14/98	hb	455	1600	f	0 658
SV-106-14	4/15/98	hb	434	1610	f	1 19
SV-106-16	4/16/98	cc	380	520	f	1 34
SV-106-17	4/16/98	cc	387	590	f	1 47
SV-106-18	4/16/98	hb	464	1880	f	10 3
SV-106-19	4/16/98	hb	449	1260	f	1 1
SV-106-20	4/22/98	hb	451	1200	m	3 24
SV-106-21	4/22/98	hb	470	1325	m	2 54
SV-106-22	4/22/98	hb	440	1250	f	7 06
SV-106-23	4/22/98	hb	425	1325	f	3 09
SV-106-24	4/23/98	hb	475	4750	f	1 1
SV-106-25	4/23/98	hb	494	4825	f	1 5

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Table 1 *OU2 Fish Study - Field Data and Total PCB Results - Spring 1998*
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-532-01	4/15/98	lmb	344	560	m	1.03
SV-532-02	4/15/98	lmb	410	1180	m	2.4
SV-532-03	4/15/98	lmb	357	730	m	1.64
SV-532-04	4/15/98	lmb	391	810	m	1.9
SV-532-05	4/15/98	lmb	367	740	m	1.24
SV-532-06	4/15/98	lmb	357	700	m	3.19
SV-532-07	4/15/98	lmb	399	1030	m	4.02
SV-532-08	4/15/98	lmb	361	650	f	1.27
SV-532-09	4/22/98	lmb	350	550	f	0.806
SV-532-10	4/22/98	lmb	403	850	f	1.14
SV-532-11	4/15/98	hb	521	2020	f	3.77 / 3.55d
SV-532-12	4/15/98	hb	469	1610	f	1.76
SV-532-13	4/15/98	hb	460	1400	f	3.87
SV-532-14	4/15/98	hb	469	1410	f	3.75
SV-532-15	4/15/98	hb	524	2010	f	2.16
SV-532-16	4/15/98	hb (sb)	475	1320	m	3.54
SV-532-17	4/15/98	hb	473	1610	f	3.27
SV-532-18	4/15/98	gs	274-327	290-410	u	1.24
SV-532-19	4/15/98	bg	110-220	580	u	0.728
SV-532-20	4/15/98	ts	45-90	neg	u	2.09
SV-532-21	4/15/98	cc	374	520	m	0.697
SV-532-22	4/22/98	cc	420	850	m	0.66
SV-532-23	4/22/98	cc	555	1800	m	1.05
SV-532-24	4/16/98	cc	391	560	f	0.681
SV-532-25	4/22/98	hb	640	2800	f	8.24
SV-532-26	4/22/98	hb (sb)	690	4000	m	4.69
SV-532-27	4/23/98	hb	445	1550	f	1.95

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 u - Unknown
 a - Combined Average
 t - Combined Total
 d - Duplicate

Table 1 OU2 Fish Study - Field Data and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-535-01	4/15/98	lmb	449	1260	f	1 33 / 1 24d
SV-535-02	4/15/98	lmb	356	530	m	0 349
SV-535-03	4/15/98	lmb	390	790	m	0 842
SV-535-04	4/15/98	lmb	409	990	m	1.65
SV-535-05	4/15/98	lmb	381	970	m	1 04
SV-535-06	4/15/98	lmb	370	770	m	0 849
SV-535-07	4/15/98	lmb	354	600	m	0 478
SV-535-08	4/15/98	lmb	340	520	m	0 251
SV-535-09	4/15/98	lmb	320	490	m	0 221
SV-535-10	4/15/98	lmb	329	480	m	0 561
SV-535-11	4/15/98	hb	469	1500	f	2 1
SV-535-12	4/15/98	hb	484	1850	f	1 37
SV-535-13	4/15/98	hb (sb)	468	1420	m	1 26
SV-535-14	4/15/98	hb	465	1390	m	4 67
SV-535-16	4/15/98	cc	459	860	f	0 788
SV-535-17	4/15/98	cc	438	690	f	0 523
SV-535-18	4/16/98	hb	438	1780	f	1 96
SV-535-19	4/16/98	hb	462	1560	f	2 14
SV-535-20	4/16/98	hb (sb)	476	1390	f	5 29
SV-535-21	4/16/98	hb	478	1580	m	4 66
SV-535-22	4/16/98	hb	456	1580	f	2 38
SV-535-23	4/16/98	cc	506	1340	f	1 04 / 0 877d
SV-535-24	4/16/98	cc	402	520	f	0

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gs - Gizzard Shad
sb - Striped Bass

f - Female
m - Male
u - Unknown
a - Combined Average
t - Combined Total
d - Duplicate

Table 1 OU2 Fish Study - Field Data and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-641-01	4/16/98	lmb	494	1500	f	0.4
SV-641-02	4/16/98	lmb	403	810	m	0.562
SV-641-03	4/16/98	lmb	384	670	f	0
SV-641-04	4/16/98	lmb	369	660	f	0
SV-641-05	4/16/98	lmb	394	810	m	0.304 / 0.281d
SV-641-06	4/16/98	lmb	336	530	f	0
SV-641-07	4/16/98	lmb	381	670	f	0
SV-641-08	4/16/98	lmb	356	580	m	0
SV-641-09	4/16/98	lmb	310	420	f	0
SV-641-10	4/16/98	lmb	320	430	f	0
SV-641-11	4/16/98	cc	397	560	f	0
SV-641-12	4/16/98	bg	95-163	475	u	0
SV-641-13	4/16/98	ts	65-134	200	u	0.148
SV-641-14	4/17/98	hb	540	2100	f	1
SV-641-15	4/17/98	hb	490	1900	f	1.75
SV-641-16	4/17/98	hb	530	1950	f	2.9
SV-641-17	4/17/98	hb (sb)	490	1500	m	1.27
SV-641-18	4/17/98	hb	460	1450	m	2.86
SV-641-19	4/17/98	hb	560	2300	f	2.7
SV-641-20	4/17/98	hb	530	2200	f	8.37
SV-641-21	4/17/98	hb	470	1450	m	1.18
SV-641-22	4/17/98	cc	420	650	f	0
SV-641-23	4/17/98	cc	410	600	m	0
SV-641-24	4/17/98	cc	440	700	m	0
SV-641-25	4/17/98	gs	240-290	150-300	u	0
SV-641-26	4/22/98	hb	442	1600	f	2.13
SV-641-27	4/22/98	hb	480	1575	m	4.79

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gs - Gizzard Shad
bg - Bluegill
sb - Stripped Bass

f - Female
m - Male
u - Unknown
a - Combined Average
t - Combined Total
d - Duplicate

Table 1 *OU2 Fish Study - Field Data and Total PCB Results - Spring 1998*
RMT, Inc., Stafford, Texas

Sample Number	Date	Species	Length (mm)	Weight (grams)	Sex	Total PCB (µg/g)
SV-642-01	4/15/98	lmb	448	1330	f	0.62
SV-642-02	4/15/98	lmb	404	1030	f	0.464
SV-642-03	4/15/98	lmb	405	980	f	0.506
SV-642-04	4/15/98	lmb	418	1100	f	0.812
SV-642-05	4/15/98	lmb	429	1160	f	0.128
SV-642-06	4/15/98	lmb	369	690	f	0
SV-642-07	4/15/98	lmb	423	1050	m	0.118
SV-642-08	4/15/98	lmb	364	630	m	0.153
SV-642-09	4/15/98	lmb	305	440	m	0
SV-642-10	4/17/98	lmb	480	1250	m	0.144
SV-642-11	4/17/98	hb	480	1700	f	1.17 / 1.24
SV-642-12	4/17/98	hb (sb)	460	1300	m	0.91
SV-642-14	4/17/98	hb	470	1600	m	1.66
SV-642-17	4/17/98	hb	470	1350	m	2.96
SV-642-19	4/17/98	cc	440	800	f	0.12
SV-642-20	4/17/98	cc	500	1150	f	0.231
SV-642-21	4/17/98	cc	410	550	m	0.556
SV-642-22	4/17/98	cc	390	550	f	0.16
SV-642-24	4/22/98	hb	460	1325	m	1.8
SV-642-25	4/22/98	hb	460	1450	f	1.33
SV-642-26	4/22/98	hb	460	1650	f	2.4
SV-642-27	4/22/98	hb	465	1525	f	4.71
SV-642-28	4/22/98	hb	462	1400	f	1.99
SV-642-29	4/22/98	hb	468	1450	f	1.43

lmb - Largemouth Bass
 hb - Hybrid Bass
 cc - Channel Catfish
 ts - Threadfin Shad
 gs - Gizzard Shad

f - Female
 m - Male
 u - Unknown
 d - Duplicate
 t - Combined Total
 sb - Striped Bass

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g										Total PCB - µg/g	
		1016	1221	1232	1242	1248	1254	1260					
SV-107-01	4/14/98	ND	ND	ND	ND	ND	6 33	0 55					6 88
SV-107-02	4/14/98	ND	ND	ND	ND	ND	9 61	1 18					10 8
SV-107-03	4/14/98	ND	ND	ND	ND	ND	10 5	1 95					12 4
SV-107-03 Dup	4/14/98	ND	ND	ND	ND	ND	7 00	1 60					8 6
SV-107-04	4/14/98	ND	ND	ND	ND	ND	3 53	0 348					3 88
SV-107-05	4/14/98	ND	ND	ND	ND	ND	1 40	0 488					1 89
SV-107-07	4/14/98	ND	ND	ND	ND	ND	3 73	0 798					4 53
SV-107-08	4/14/98	ND	ND	ND	ND	ND	0 581	ND					0 581
SV-107-09	4/14/98	ND	ND	ND	ND	ND	0 994	0 230					1 22
SV-107-10	4/14/98	ND	ND	ND	ND	ND	1 40	0 207					1 61
SV-107-10 Dup	4/14/98	ND	ND	ND	ND	ND	1 06	0 203					1 26
SV-107-11	4/14/98	ND	ND	ND	ND	ND	1 24	0 224					1 46
SV-107-12	4/14/98	ND	ND	ND	ND	ND	2 59	0 498					3 09
SV-107-13	4/14/98	ND	ND	ND	ND	ND	3 42	0 662					4 08
SV-107-15	4/15/98	ND	ND	ND	ND	ND	2 31	0 434					2 74
SV-107-16	4/15/98	ND	ND	ND	ND	ND	2 85	0 539					3 39
SV-107-17	4/15/98	ND	ND	ND	ND	ND	5 32	1 06					6 38
SV-107-18	4/16/98	ND	ND	ND	ND	ND	4 39	0 983					5 37
SV-107-19	4/16/98	ND	ND	ND	ND	ND	10 8	1 90					12 7
SV-107-20	4/16/98	ND	ND	ND	ND	ND	9 5	1 42					10 9
SV-107-21	4/16/98	ND	ND	ND	ND	ND	14 9	2 27					17 2
SV-107-22	4/16/98	ND	ND	ND	ND	ND	2 85	1 06					3 91
SV-107-23	4/16/98	ND	ND	ND	ND	ND	3 37	0 463					3 83
SV-107-24	4/22/98	ND	ND	ND	ND	ND	2 02	0 663					2 68
SV-107-25	4/22/98	ND	ND	ND	ND	ND	0 823	0 292					1 12
SV-107-26	4/22/98	ND	ND	ND	ND	ND	1 03	0 485					1 51
SV-107-27	4/22/98	ND	ND	ND	ND	ND	1 31	0 362					1 67
SV-107-28	4/23/98	ND	ND	ND	ND	ND	0 733	0 238					0 971
SV-107-29	4/23/98	ND	ND	ND	ND	ND	1 89	0 567					2 46

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g								Total PCB - $\mu\text{g/g}$	
		1016	1221	1232	1242	1248	1254	1260	PCB - $\mu\text{g/g}$		
SV-106-01	4/14/98	ND	ND	ND	ND	ND	3 77	0 780	4 55		
SV-106-02	4/14/98	ND	ND	ND	ND	ND	4 52	0 754	5 27		
SV-106-03	4/14/98	ND	ND	ND	ND	ND	3 50	0 629	4 13		
SV-106-04	4/14/98	ND	ND	ND	ND	ND	3 36	0 756	4 12		
SV-106-05	4/14/98	ND	ND	ND	ND	ND	3 95	0 639	4 59		
SV-106-06	4/14/98	ND	ND	ND	ND	ND	3 15	1 39	4 54		
SV-106-07	4/14/98	ND	ND	ND	ND	ND	1 95	0 301	2 25		
SV-106-08	4/14/98	ND	ND	ND	ND	ND	2 98	0 702	3 68		
SV-106-09	4/14/98	ND	ND	ND	ND	ND	3 17	0 646	3 82		
SV-106-09 Dup	4/14/98	ND	ND	ND	ND	ND	3 88	0 752	4 63		
SV-106-10	4/14/98	ND	ND	ND	ND	ND	3 17	1 41	4 58		
SV-106-11	4/14/98	ND	ND	ND	ND	ND	2 56	0 451	3 01		
SV-106-12	4/14/98	ND	ND	ND	ND	ND	3 66	0 643	4 3		
SV-106-13	4/14/98	ND	ND	ND	ND	ND	0 658	ND	0 658		
SV-106-14	4/15/98	ND	ND	ND	ND	ND	1 04	0 153	1 19		
SV-106-16	4/16/98	ND	ND	ND	ND	ND	1 13	0 211	1 34		
SV-106-17	4/16/98	ND	ND	ND	ND	ND	1 22	0 251	1 47		
SV-106-18	4/16/98	ND	ND	ND	ND	ND	8 78	1 56	10 3		
SV-106-19	4/16/98	ND	ND	ND	ND	ND	0 854	0 242	1 1		
SV-106-20	4/22/98	ND	ND	ND	ND	ND	2 63	0 611	3 24		
SV-106-21	4/22/98	ND	ND	ND	ND	ND	1 93	0 605	2 54		
SV-106-22	4/22/98	ND	ND	ND	ND	ND	6 11	0 950	7 06		
SV-106-23	4/22/98	ND	ND	ND	ND	ND	2 65	0 437	3 09		
SV-106-24	4/23/98	ND	ND	ND	ND	ND	0 853	0 245	1 1		
SV-106-25	4/23/98	ND	ND	ND	ND	ND	1 19	0 310	1 5		

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g							Total PCB - µg/g	
		1016	1221	1232	1242	1248	1254	1260		
SV-532-01	4/15/98	ND	ND	ND	ND	ND	0.916	0.114	1.03	
SV-532-02	4/15/98	ND	ND	ND	ND	ND	2.13	0.265	2.4	
SV-532-03	4/15/98	ND	ND	ND	ND	ND	1.47	0.171	1.64	
SV-532-04	4/15/98	ND	ND	ND	ND	ND	1.65	0.254	1.9	
SV-532-05	4/15/98	ND	ND	ND	ND	ND	1.10	0.135	1.24	
SV-532-06	4/15/98	ND	ND	ND	ND	ND	2.51	0.677	3.19	
SV-532-07	4/15/98	ND	ND	ND	ND	ND	3.14	0.876	4.02	
SV-532-08	4/15/98	ND	ND	ND	ND	ND	0.894	0.373	1.27	
SV-532-09	4/22/98	ND	ND	ND	ND	ND	0.612	0.194	0.806	
SV-532-10	4/22/98	ND	ND	ND	ND	ND	0.776	0.364	1.14	
SV-532-11	4/15/98	ND	ND	ND	ND	ND	3.01	0.756	3.77	
SV-532-11 Dup	4/15/98	ND	ND	ND	ND	ND	2.86	0.690	3.55	
SV-532-12	4/15/98	ND	ND	ND	ND	ND	1.10	0.664	1.76	
SV-532-13	4/15/98	ND	ND	ND	ND	ND	3.21	0.657	3.87	
SV-532-14	4/15/98	ND	ND	ND	ND	ND	3.10	0.645	3.75	
SV-532-15	4/15/98	ND	ND	ND	ND	ND	1.72	0.444	2.16	
SV-532-16	4/15/98	ND	ND	ND	ND	ND	2.77	0.775	3.54	
SV-532-17	4/15/98	ND	ND	ND	ND	ND	2.72	0.551	3.27	
SV-532-18	4/15/98	ND	ND	ND	ND	ND	0.897	0.347	1.24	
SV-532-19	4/15/98	ND	ND	ND	ND	ND	0.538	0.190	0.728	
SV-532-20	4/15/98	ND	ND	ND	ND	ND	1.78	0.305	2.09	
SV-532-21	4/15/98	ND	ND	ND	ND	ND	0.568	0.129	0.697	
SV-532-22	4/22/98	ND	ND	ND	ND	ND	0.526	0.134	0.66	
SV-532-23	4/22/98	ND	ND	ND	ND	ND	0.855	0.197	1.05	
SV-532-24	4/16/98	ND	ND	ND	ND	ND	0.552	0.129	0.681	
SV-532-25	4/22/98	ND	ND	ND	ND	ND	6.66	1.58	8.24	
SV-532-26	4/22/98	ND	ND	ND	ND	ND	3.58	1.11	4.69	
SV-532-27	4/23/98	ND	ND	ND	ND	ND	1.26	0.691	1.95	

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g								Total PCB - µg/g	
		1016	1221	1232	1242	1248	1254	1260			
SV-535-01	4/15/98	ND	ND	ND	ND	ND	0 987	0 340			1 33
SV-535-01 Dup	4/15/98	ND	ND	ND	ND	ND	0 927	0 317			1 24
SV-535-02	4/15/98	ND	ND	ND	ND	ND	0 223	0 126			0 349
SV-535-03	4/15/98	ND	ND	ND	ND	ND	0 656	0 186			0 842
SV-535-04	4/15/98	ND	ND	ND	ND	ND	1 29	0 363			1 65
SV-535-05	4/15/98	ND	ND	ND	ND	ND	0 774	0 262			1 04
SV-535-06	4/15/98	ND	ND	ND	ND	ND	0 618	0 231			0 849
SV-535-07	4/15/98	ND	ND	ND	ND	ND	0 348	0 130			0 478
SV-535-08	4/15/98	ND	ND	ND	ND	ND	0 251	ND			0 251
SV-535-09	4/15/98	ND	ND	ND	ND	ND	0 221	ND			0 221
SV-535-10	4/15/98	ND	ND	ND	ND	ND	0 380	0 181			0 561
SV-535-11	4/15/98	ND	ND	ND	ND	ND	1 54	0 557			2 1
SV-535-12	4/15/98	ND	ND	ND	ND	ND	0 927	0 446			1 37
SV-535-13	4/15/98	ND	ND	ND	ND	ND	0 896	0 367			1 26
SV-535-14	4/15/98	ND	ND	ND	ND	ND	3 96	0 708			4 67
SV-535-16	4/15/98	ND	ND	ND	ND	ND	0 595	0 193			0 788
SV-535-17	4/15/98	ND	ND	ND	ND	ND	0 391	0 132			0 523
SV-535-18	4/16/98	ND	ND	ND	ND	ND	1 47	0 486			1 96
SV-535-19	4/16/98	ND	ND	ND	ND	ND	1 52	0 624			2 14
SV-535-20	4/16/98	ND	ND	ND	ND	ND	4 30	0 989			5 29
SV-535-21	4/16/98	ND	ND	ND	ND	ND	3 70	0 963			4 66
SV-535-22	4/16/98	ND	ND	ND	ND	ND	1 78	0 595			2 38
SV-535-23	4/16/98	ND	ND	ND	ND	ND	0 807	0 234			1 04
SV-535-23 Dup	4/16/98	ND	ND	ND	ND	ND	0 677	0 200			0 877
SV-535-24	4/16/98	ND	ND	ND	ND	ND	ND	ND			0

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g								Total PCB - µg/g	
		1016	1221	1232	1242	1248	1254	1260			
SV-641-01	4/16/98	ND	ND	ND	ND	ND	0 276	0 124	0		
SV-641-02	4/16/98	ND	ND	ND	ND	ND	0 391	0 171	0 562		
SV-641-03	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-04	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-05	4/16/98	ND	ND	ND	ND	ND	0 183	0 121	0 304		
SV-641-05 Dup	4/16/98	ND	ND	ND	ND	ND	0 163	0 118	0 281		
SV-641-06	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-07	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-08	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-09	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-10	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-11	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-12	4/16/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-13	4/16/98	ND	ND	ND	ND	ND	0 148	ND	0 148		
SV-641-14	4/17/98	ND	ND	ND	ND	ND	0 694	0 308	1 00		
SV-641-15	4/17/98	ND	ND	ND	ND	ND	1 10	0 655	1 75		
SV-641-16	4/17/98	ND	ND	ND	ND	ND	2 35	0 554	2 90		
SV-641-17	4/17/98	ND	ND	ND	ND	ND	0 847	0 421	1 27		
SV-641-18	4/17/98	ND	ND	ND	ND	ND	2 10	0 757	2 86		
SV-641-19	4/17/98	ND	ND	ND	ND	ND	2 19	0 513	2 7		
SV-641-20	4/17/98	ND	ND	ND	ND	ND	7 04	1 33	8 37		
SV-641-21	4/17/98	ND	ND	ND	ND	ND	1 18	ND	1 18		
SV-641-22	4/17/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-23	4/17/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-24	4/17/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-25	4/17/98	ND	ND	ND	ND	ND	ND	ND	0		
SV-641-26	4/22/98	ND	ND	ND	ND	ND	1 39	0 739	2 13		
SV-641-27	4/22/98	ND	ND	ND	ND	ND	3 80	0 989	4 79		

Table 2 OU2 Fish Study - Aroclor and Total PCB Results - Spring 1998
RMT, Inc., Stafford, Texas

Sample Number	Date Sampled	Aroclor Identification- ug/g								Total PCB - µg/g	
		1016	1221	1232	1242	1248	1254	1260			
SV-642-01	4/15/98	ND	ND	ND	ND	ND	0.436	0.184		0.62	
SV-642-02	4/15/98	ND	ND	ND	ND	ND	0.264	0.200		0.464	
SV-642-03	4/15/98	ND	ND	ND	ND	ND	0.300	0.206		0.506	
SV-642-04	4/15/98	ND	ND	ND	ND	ND	0.519	0.293		0.812	
SV-642-05	4/15/98	ND	ND	ND	ND	ND	0.128	ND		0.128	
SV-642-06	4/15/98	ND	ND	ND	ND	ND	ND	ND		0	
SV-642-07	4/15/98	ND	ND	ND	ND	ND	0.118	ND		0.118	
SV-642-08	4/15/98	ND	ND	ND	ND	ND	0.153	ND		0.153	
SV-642-09	4/15/98	ND	ND	ND	ND	ND	ND	ND		0	
SV-642-10	4/17/98	ND	ND	ND	ND	ND	0.144	ND		0.144	
SV-642-11	4/17/98	ND	ND	ND	ND	ND	0.992	0.177		1.17	
SV-642-11 Dup	4/17/98	ND	ND	ND	ND	ND	0.896	0.346		1.24	
SV-642-12	4/17/98	ND	ND	ND	ND	ND	0.667	0.243		0.91	
SV-642-14	4/17/98	ND	ND	ND	ND	ND	1.15	0.512		1.66	
SV-642-17	4/17/98	ND	ND	ND	ND	ND	2.39	0.570		2.96	
SV-642-19	4/17/98	ND	ND	ND	ND	ND	0.12	ND		0.12	
SV-642-20	4/17/98	ND	ND	ND	ND	ND	0.231	ND		0.231	
SV-642-21	4/17/98	ND	ND	ND	ND	ND	0.431	0.125		0.556	
SV-642-22	4/17/98	ND	ND	ND	ND	ND	0.16	ND		0.16	
SV-642-24	4/22/98	ND	ND	ND	ND	ND	1.38	0.417		1.8	
SV-642-25	4/22/98	ND	ND	ND	ND	ND	0.916	0.411		1.33	
SV-642-26	4/22/98	ND	ND	ND	ND	ND	1.85	0.546		2.4	
SV-642-27	4/22/98	ND	ND	ND	ND	ND	3.98	0.725		4.71	
SV-642-28	4/22/98	ND	ND	ND	ND	ND	1.45	0.538		1.99	
SV-642-29	4/22/98	ND	ND	ND	ND	ND	1.1	0.33		1.43	

Table 3 1998 Lake Hartwell OU2 Fish Study Total PCB Concentrations (ppm) in Largemouth Bass Fillets
RMT, Inc., Stafford, Texas

Replicate	Sample					
Number	SV-107	SV-106	SV-532	SV-535	SV-641	SV-642
01	6 88	4 55	1 03	1 33 / 1 24d	0 4	0 62
02	10 80	5 27	2 4	0 349	0 564	0 464
03	12 4 / 8 6d	4 13	1 64	0 842	0 112 *	0 506
04	2 74	4 12	1 9	1 65	0 112 *	0 812
05	3 39	4 59	1 24	1 04	304 / 281d	0 128
06	6 38	4 54	3 19	0 849	0 112 *	0 112 *
07	5 37	2 25	4 02	0 478	0 112 *	0 118
08	12 7	3 68	1 27	0 251	0 112 *	0 153
09	10 9	3 82 / 4 63d	0 806	0 221	0 112 *	0 112 *
10	17 2	4 58	1 14	0 561	0 112 *	0 144
Mean	8.69	4.19	1.86	0.75	0.16	0.31
Std. Dev.	4.52	0.80	1.04	0.47	0.19	0.27

*One half of the detection limit is used for the averaging value

d = duplicate, average of duplicate and value is used for averaging value

Largemouth Bass

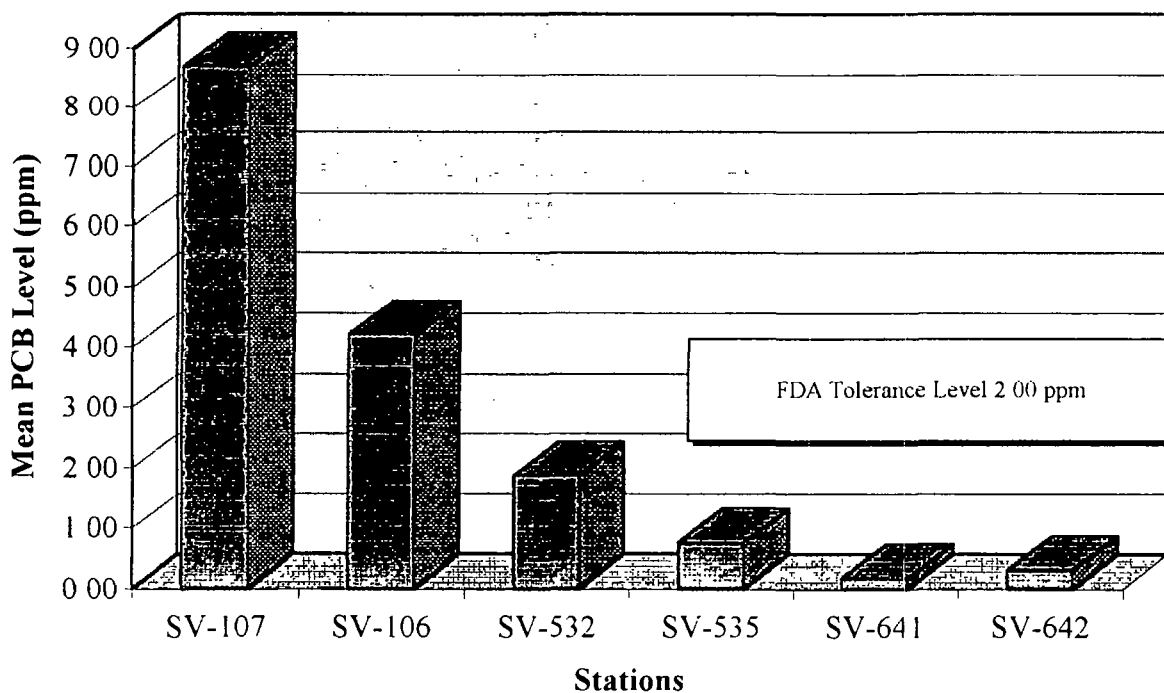


Table 4 1998 Lake Hartwell OU2 Fish Study Total PCB Concentrations (ppm) in Hybrid Bass Fillets
RMT, Inc., Stafford, Texas

Replicate	Sample					
Number	SV-107	SV-106	SV-532	SV-535	SV-641	SV-642
01	3.88	0.658	3.77 / 3.55d	2.10	1	1.17 / 1.24d
02	1.89	1.19	1.76	1.37	1.75	0.91
03	4.53	10.3	3.87	1.26	2.9	1.66
04	3.91	1.1	3.75	4.67	1.27	2.96
05	2.68	3.24	2.16	1.96	2.86	1.8
06	1.12	2.54	3.54	2.14	2.7	1.33
07	1.51	7.06	3.27	5.29	8.37	2.4
08	1.67	3.09	8.24	4.66	1.18	4.710
09	0.97	1.1	1.95	2.380	2.13	1.99
10	2.46	1.5			4.79	1.43
Mean	2.46	3.18	3.58	2.87	2.68	2.04
Std. Dev.	1.26	3.13	1.93	1.55	2.26	1.11

*One half of the detection limit is used for the averaging value

d = duplicate, average of duplicate and value is used for averaging value

Note Replicates 01 and 02 for SV-107, replicate 06 for SV-532, replicates 03 and 07 for SV-532, and replicate 02 for SV-642 were Striped Bass, not Hybrid Bass

Note Replicate 03 for SV-107 was a White Bass, not Hybrid Bass

Hybrid Bass

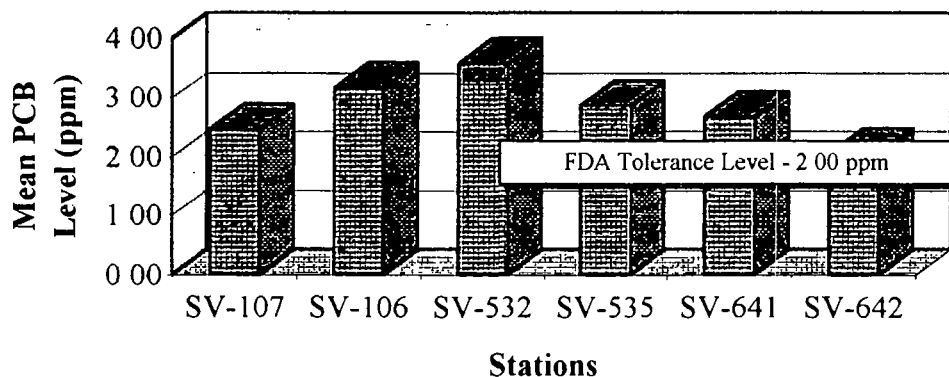


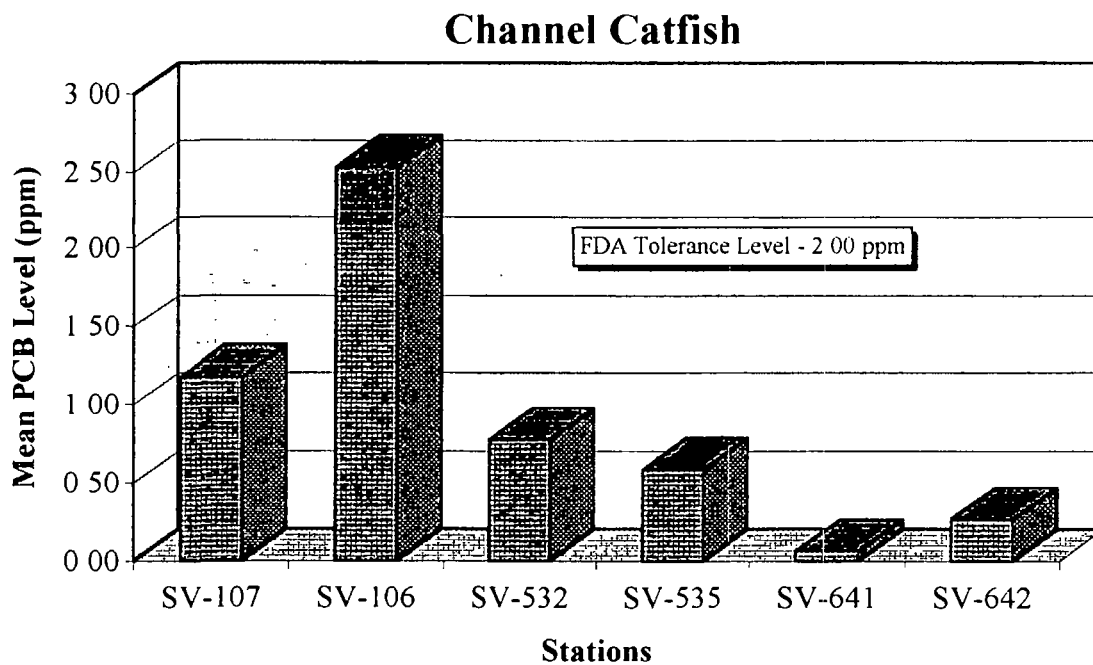
Table 5 1998 Lake Hartwell OU2 Fish Study Total PCB Concentrations (ppm) in Channel Catfish Fillets
RMT, Inc., Stafford, Texas

Replicate	Station					
Number	SV-107	SV-106	SV-532	SV-535	SV-641	SV-642
01	0.581	3.01	0.697	0.788	0.118 *	0.12
02	1.22	4.3	0.66	0.523	0.114 *	0.231
03	1.61 / 1.26d	1.34	1.05	1.04 / 0.877d	0.117 *	0.556
04	1.46	1.47	0.681	0.112 *	0.114 *	0.16
Mean	1.17	2.53	0.77	0.58	0.06	0.27
Std. Dev.	0.410	1.40	0.19	0.39	0.00	0.20

d = duplicate

*One half of the detection limit is used for the averaging value

d = duplicate, average of duplicate and value is used for averaging value



gill at SV-532) Gizzard shad, however, were generally smaller than those collected in previous years. The highest concentration of PCBs in an individual forage fish was a bluegill at SV-107 (8.4 ppm). The PCB concentrations were less than 2.0 ppm in five of the nine forage fish samples and less than 1.0 ppm for all species at station SV-641. The PCB concentrations were lower in each forage fish species with distance from the Twelvemile Creek Arm of Lake Hartwell. The forage species with the highest PCB concentration was bluegill at SV-107 (4.08 ppm).

The PCB concentrations detected in the 1998 fish study were compared to historic data dating from 1990 to present. Illustrated in Figures 4 through 6 are the trends in average PCB concentration of fish fillets for largemouth bass, hybrid bass and channel catfish, respectively. Each figure depicts the trend of PCB concentrations for each of the six locations sampled. The 2.0 ppm FDA limit was consistently exceeded in largemouth bass fillets (Figure 4) from two stations, SV-107 and SV-106, during this nine-year period. A single exceedance was reported at station SV-532 during 1994. No exceedances in average largemouth bass PCB concentrations have been reported at stations SV-535, SV-641 and SV-642 from 1990 to 1998. Distinct trends over time were not observed in the data in the lower four stations (where concentrations were generally below 2.0 ppm) while generally lower concentrations of PCBs were detected at SV-107 and SV-106 from 1990 to present. The 1998 value at SV-106, however, was the second highest for largemouth bass during the nine-year period. The concentration detected at SV-107 (8.69 ppm) during 1998 is similar to the concentrations detected in 1996 and 1997, and it remains elevated over the concentrations detected in the previous years. The concentrations detected in 1996, 1997, and 1998, however, were less than the concentrations detected in 1990 and 1991. This is believed to be reflective of an overall decrease in PCBs due to natural degradation, covering, and source reduction.

The database for hybrid bass does not include all years for all stations for the period 1990 through 1998 due to difficulties in collecting this highly mobile species. Hybrid bass were collected at all locations during 1998, however, striped bass were substituted at some stations due to the lack of adequate sized hybrid bass during the sampling period. The mean PCB concentrations (see Figure 5) tend to indicate that the trend of PCB reduction indicated by largemouth bass on a localized basis is somewhat evidenced by hybrid bass. The historic data indicate that PCB concentrations appear to be randomly scattered by date and location. The 1998 data indicate that the concentration of PCBs was lowest in the station near the dam (SV-642), which is the greatest distance from Twelvemile Creek. The stations with generally the highest concentrations are SV-106 and SV-532. The degree of scatter in these data may be attributed to the

wide migratory movements of the hybrid bass, which expose them to all areas of the lake. In addition, the PCB concentrations in hybrid bass are generally lower at SV-107 than other stations. This may be due to the use of the Keowee River by hybrids in this area.

The annual trends in mean PCB concentrations in catfish fillets (see Figure 6) were similar to those in largemouth bass, with lower concentrations detected over an increased distance from Twelvemile Creek. The concentration of PCBs, however, was highest at SV-106 rather than SV-107 as in most past sampling events. In addition, the 2.0 ppm level was not exceeded in any of the fish samples in the four most distant stations and station SV-107. The concentrations detected at SV-106 tend to indicate a slight increase over the 1995 to 1997 period; however, the 1998 data indicate a general trend of PCB reductions in catfish fillets lake-wide.

A total of four sampling surveys have been conducted from 1995 through 1998 with collection of consistent size and species of fish. With these data, the concentration of PCBs in the forage fish species were plotted (Figures 7, 8, and 9 for bluegill, threadfin shad, and gizzard shad, respectively). These data, collected over a limited period of time do not indicate definitive trends in the reduction of PCBs in forage fish with the possible exception of gizzard shad (Figure 9). The gizzard shad data indicate an apparent steady decrease in PCBs over time and with distance downstream of Twelvemile Creek. Significant decreases were observed from 1997 to 1998. In general, the decrease in PCB concentrations with distance from the Twelvemile Creek is also observed in the bluegill and threadfin shad. In 1997 and 1998 the concentration of PCBs in bluegill was higher than previous years, while threadfin shad indicated more erratic concentrations over time. Additional data is needed to identify definitive trends in these data.

3.2

SEDIMENTS

Sediment data are summarized in Table 7 for the 21 samples collected in April of 1998 (see Appendix B for individual results of analyses and Figures 2 and 3 for site maps with sample locations and PCB results). Sediment values ranged from 2.83 ppm collected at two locations SD-009 and SD-011 in the Twelvemile Creek Arm to non-detected levels observed near the Lake Hartwell Dam, background locations upstream, and the Tugaloo River Arm. The maximum concentration detected in 1998 was much less than the maximum concentration detected in 1997 (11.0 ppm). The concentrations generally decreased in an upstream direction from the high value of 2.83 ppm to a concentration of 0.255 ppm near Maw Bridge (SD-006). The concentrations in Twelvemile Creek upstream of Lake

Bluegill

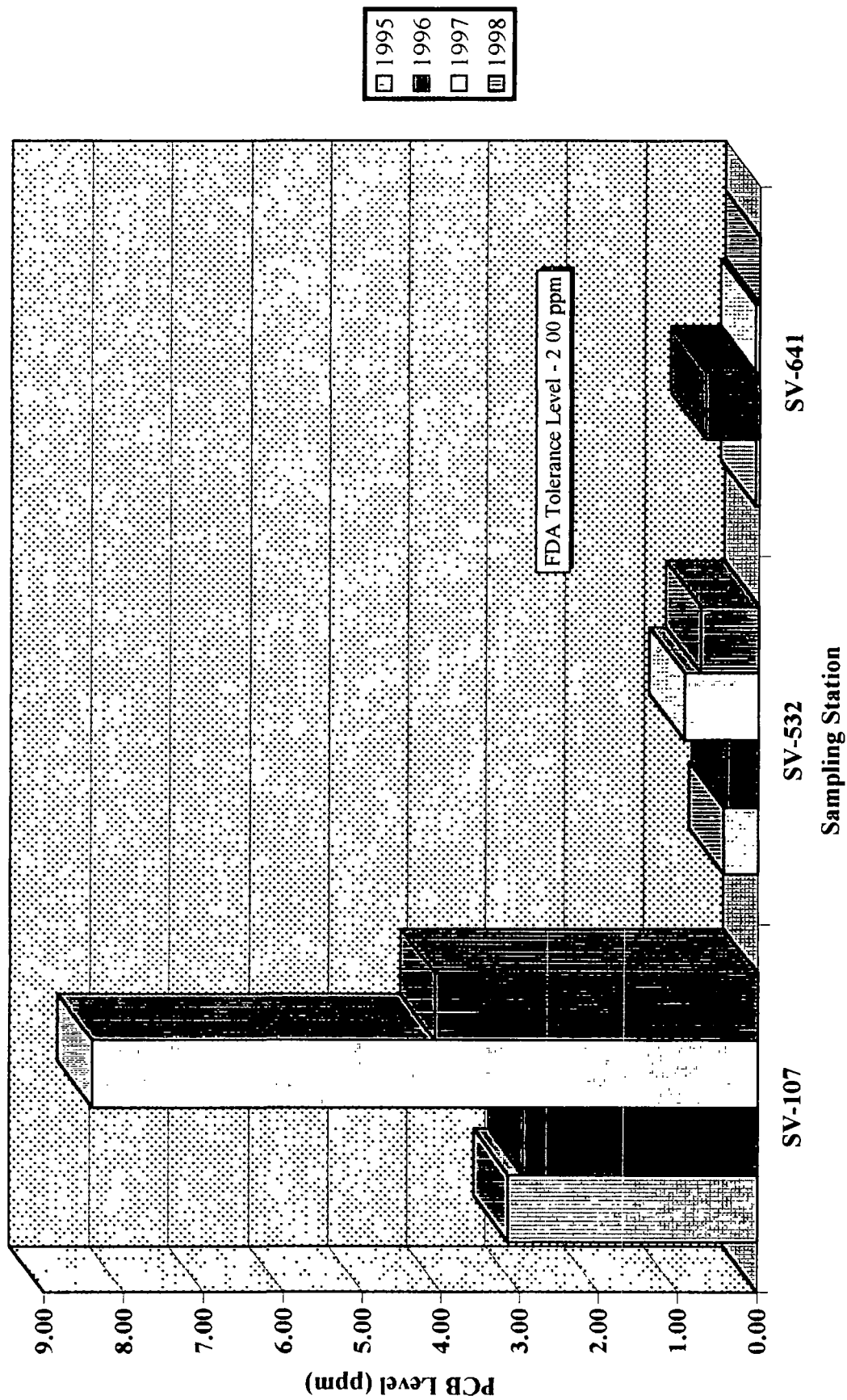


Figure 7 - PCB Levels in Bluegill Composite Samples (1995-1998),
Lake Hartwell OU2 Fish Study

Threadfin Shad

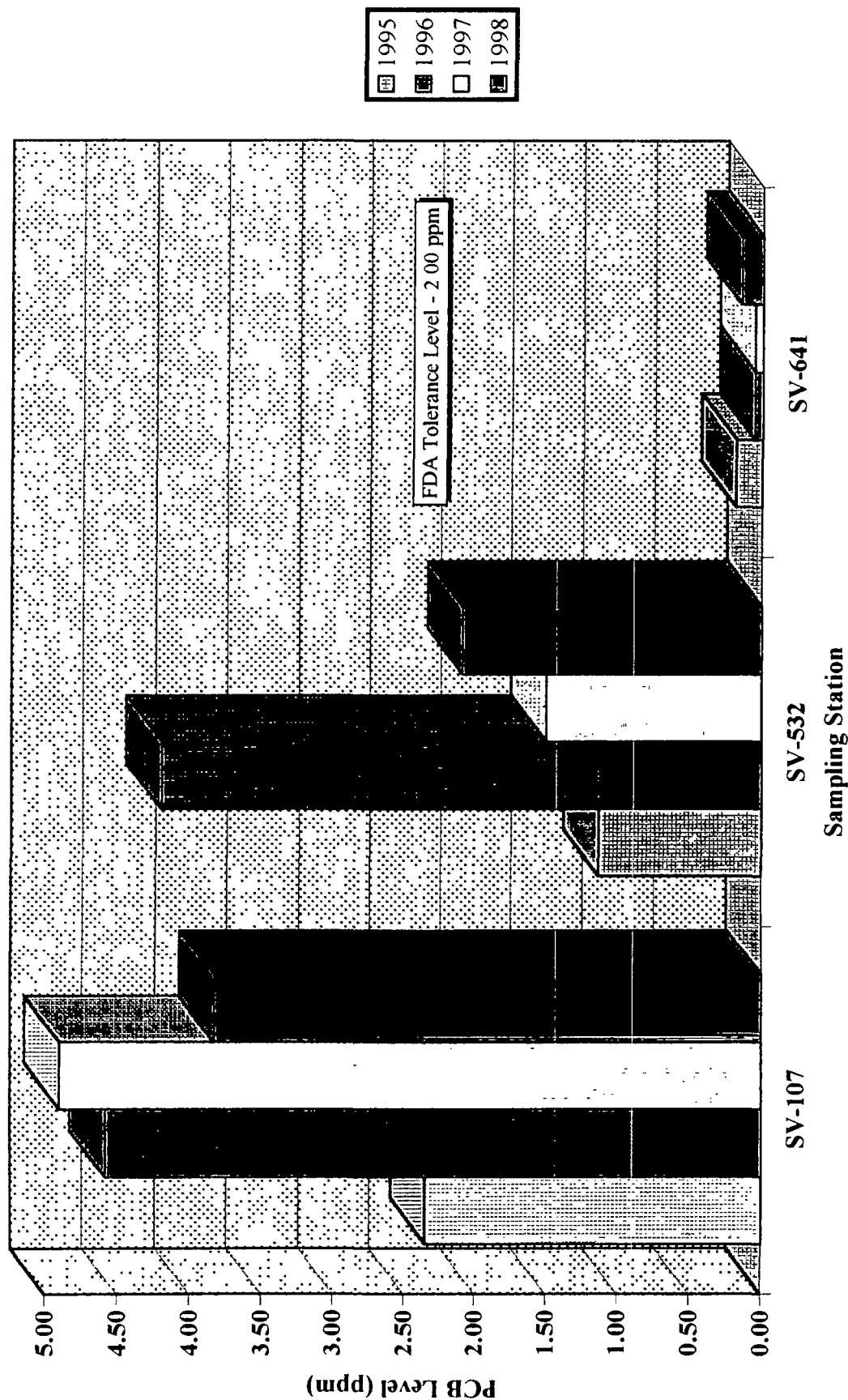


Figure 8 - PCB Levels in Threadfin Shad Composite Samples (1995-1998),
Lake Hartwell OU2 Fish Study

Gizzard Shad

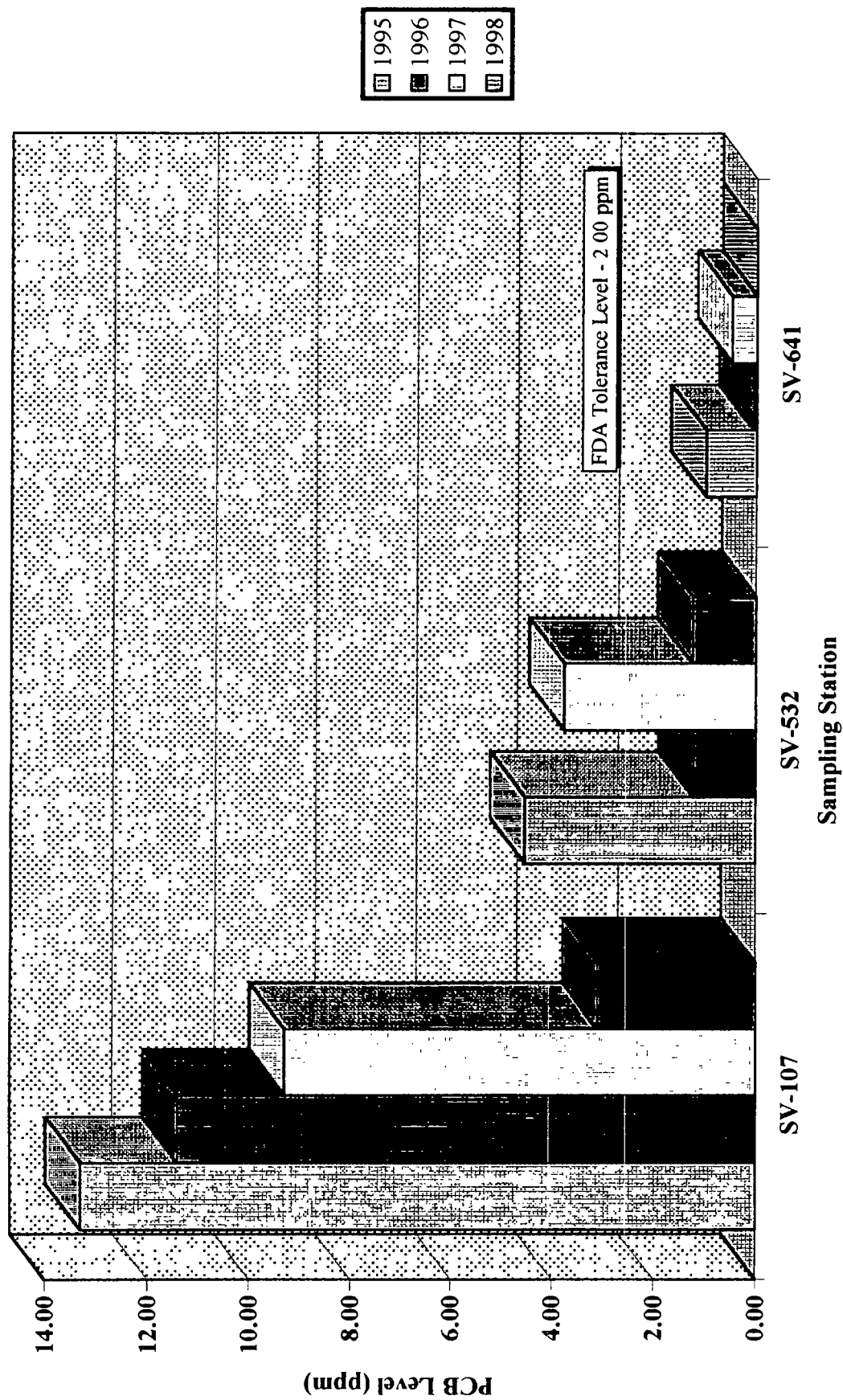
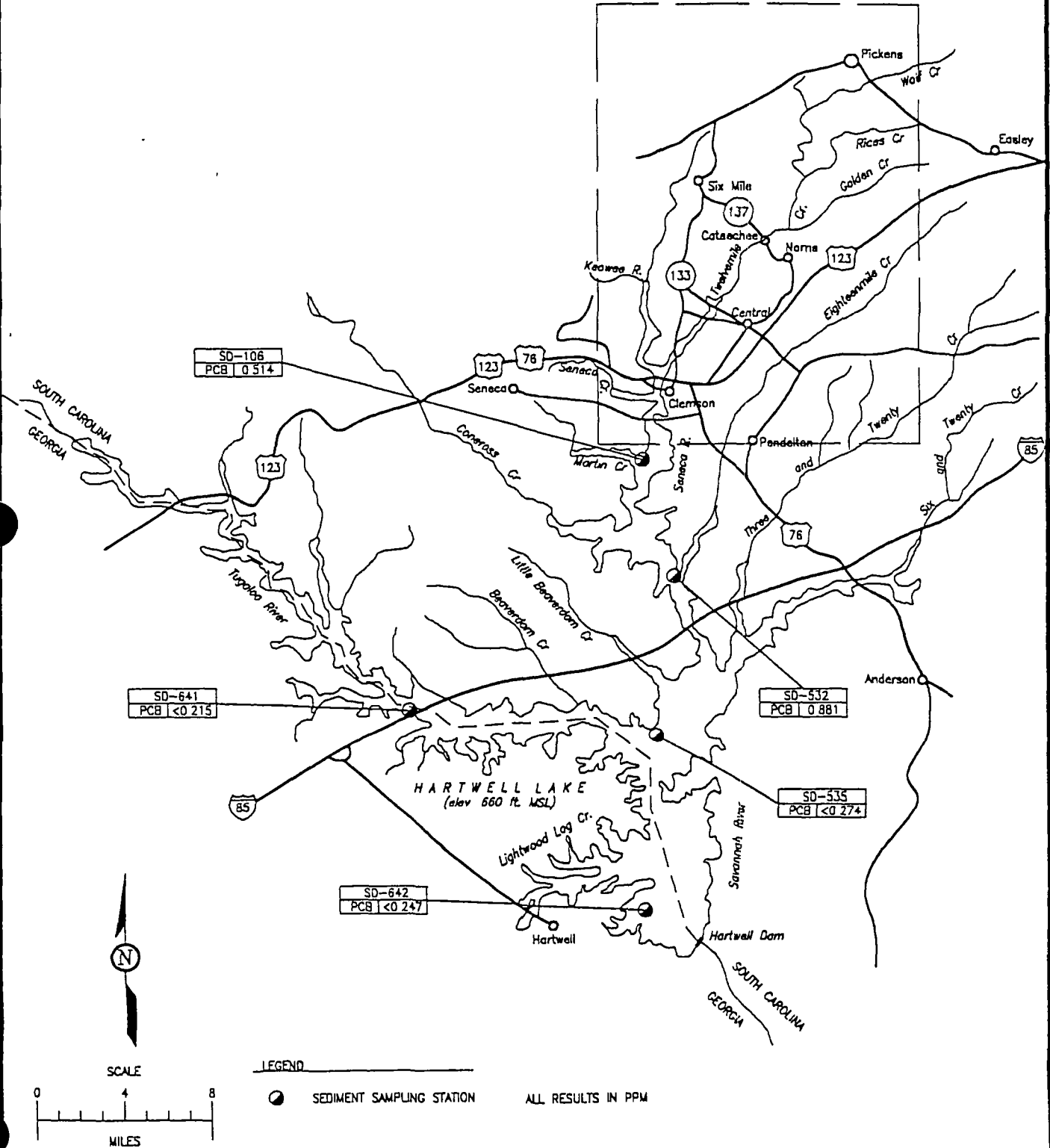


Figure 9 - PCB Levels in Gizzard Shad Composite Samples (1995-1998),
Lake Hartwell OU2 Fish Study

TWELVEMILE CREEK AREA RESULTS SHOWN IN FIGURE 3



SEDIMENT SAMPLING LOCATIONS IN
LAKE HARTWELL SHOWING PCB ANALYTICAL
RESULTS FOR 1998 OU2 FISH STUDY

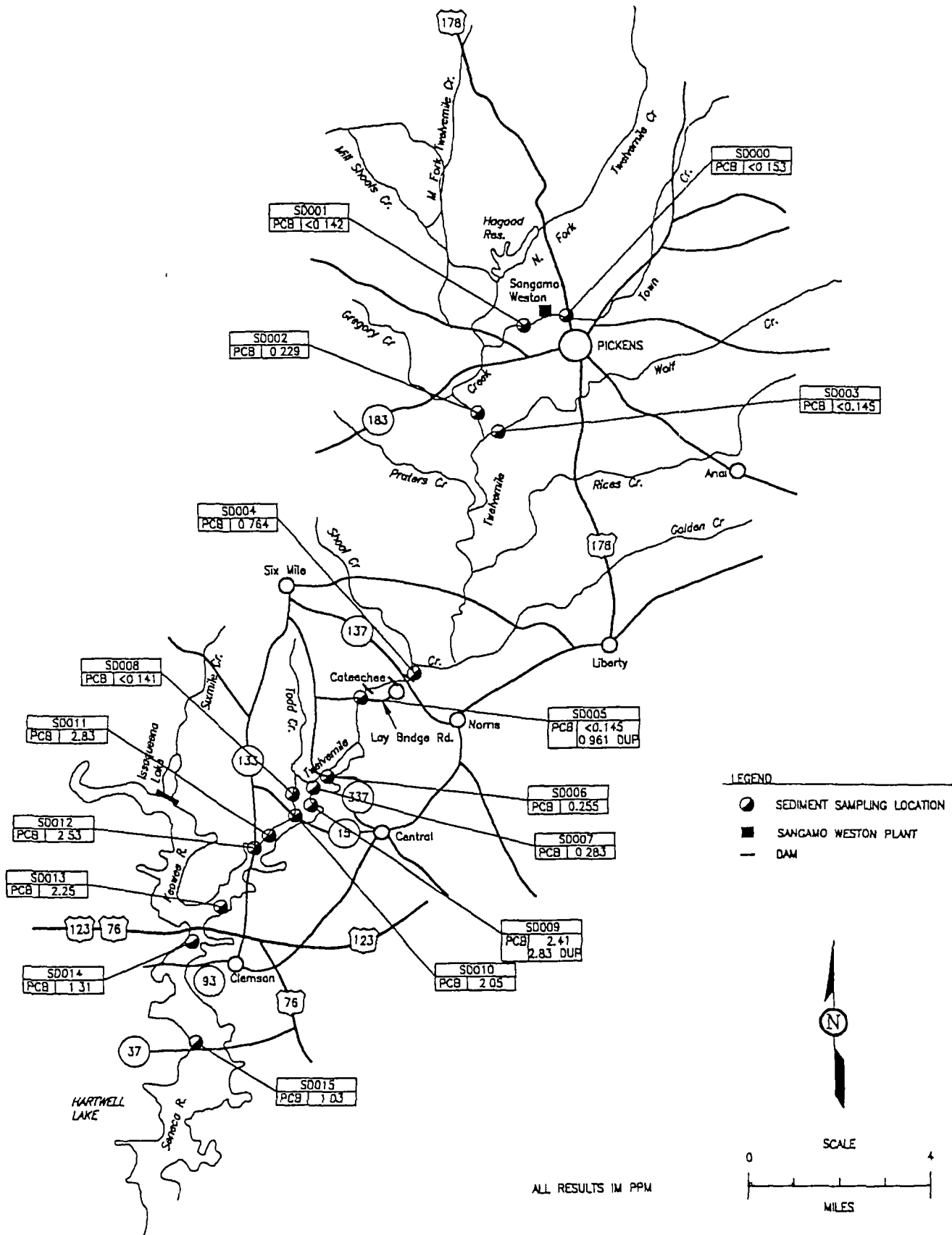
FIGURE

2



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SEDIMENT SAMPLING LOCATIONS IN TWELVEMILE
CREEK SHOWING PCB ANALYTICAL RESULTS
FOR 1998 OU2 FISH STUDY

FIGURE

3

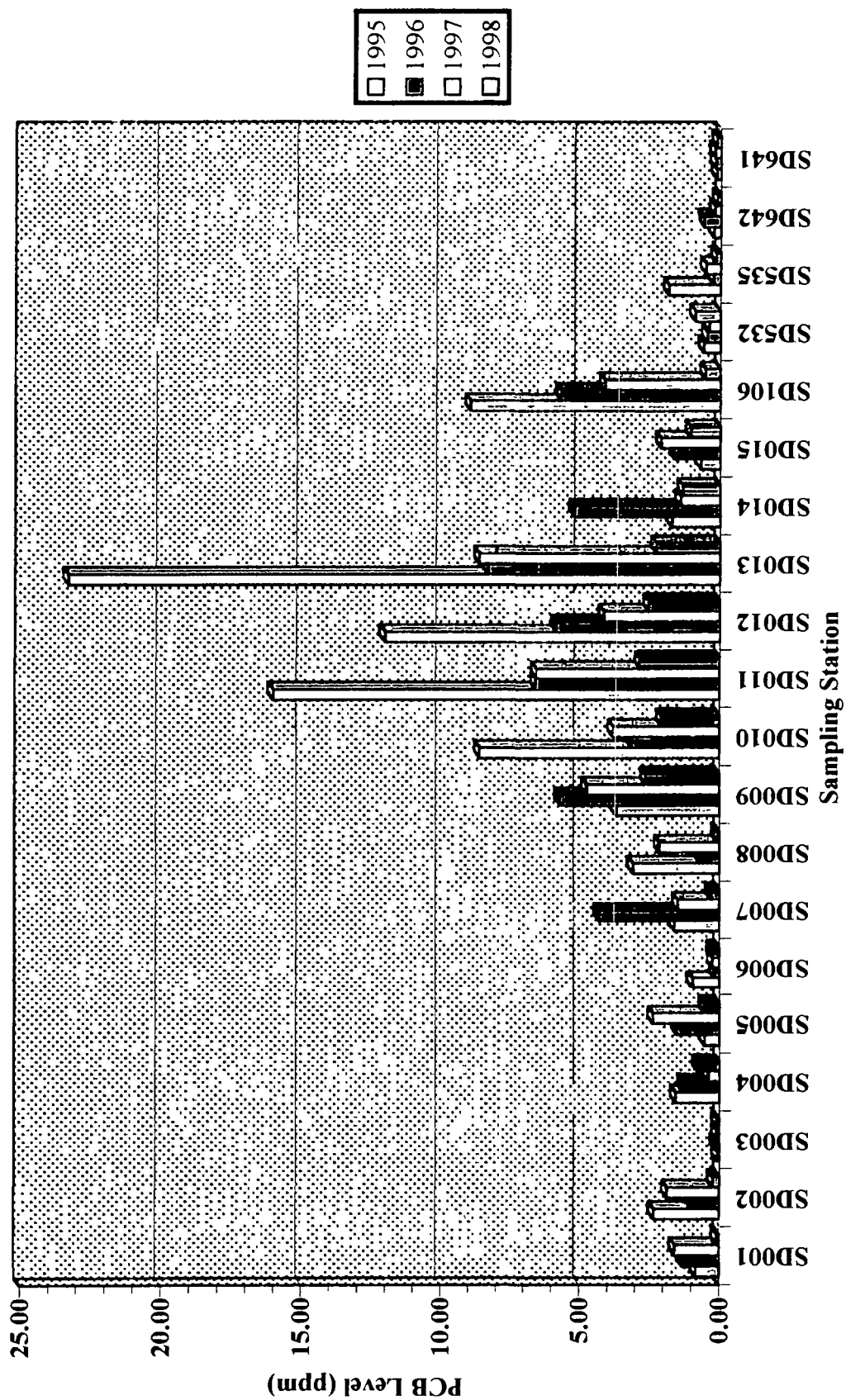
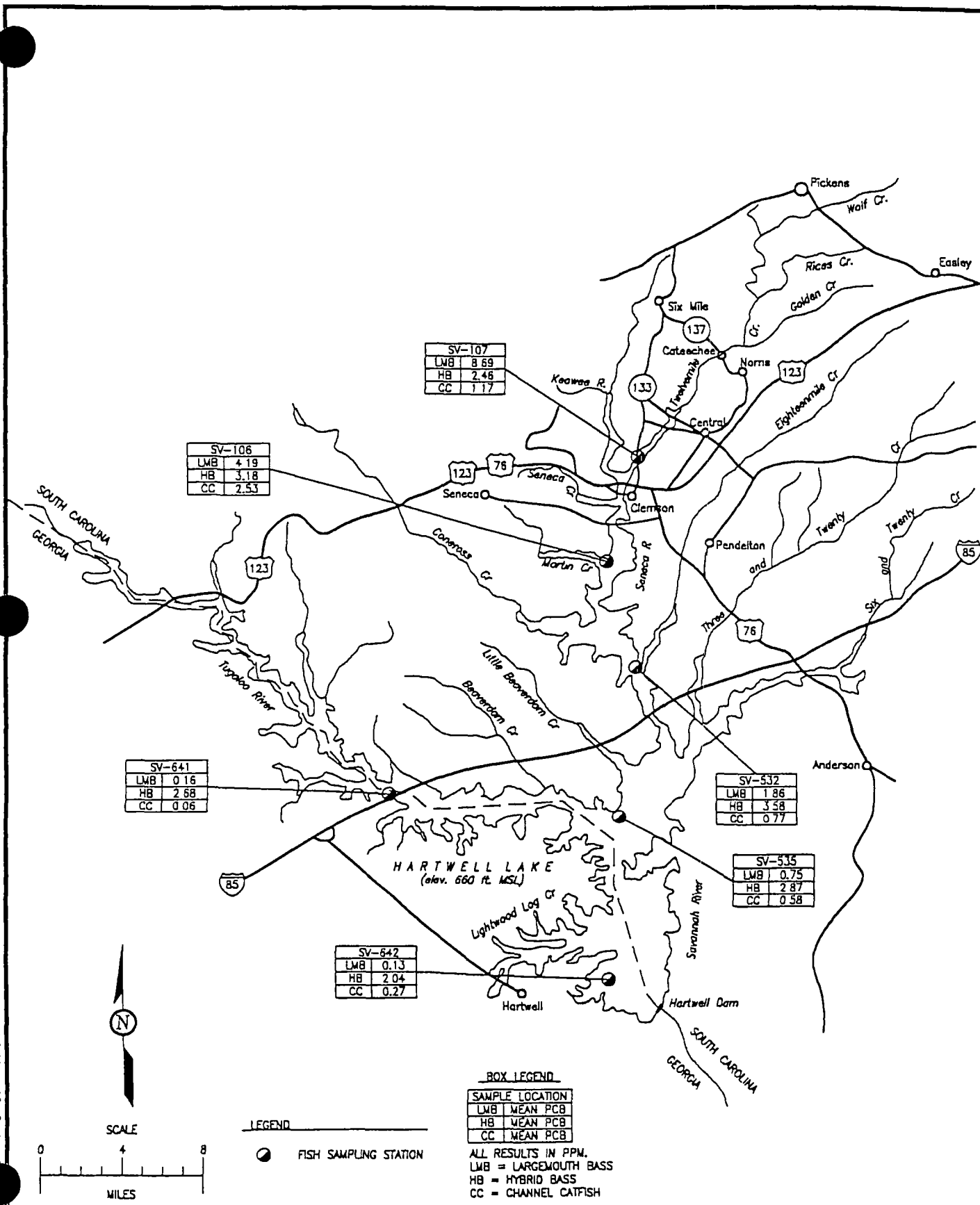


Figure 10 - PCB Levels in Sediment Samples (1995-1998),
Lake Hartwell OU2 Fish Study



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FISH SAMPLING STATIONS IN LAKE HARTWELL SHOWING PCB ANALYTICAL RESULTS FOR 1998 OU2 FISH STUDY

FIGURE

1

Largemouth Bass

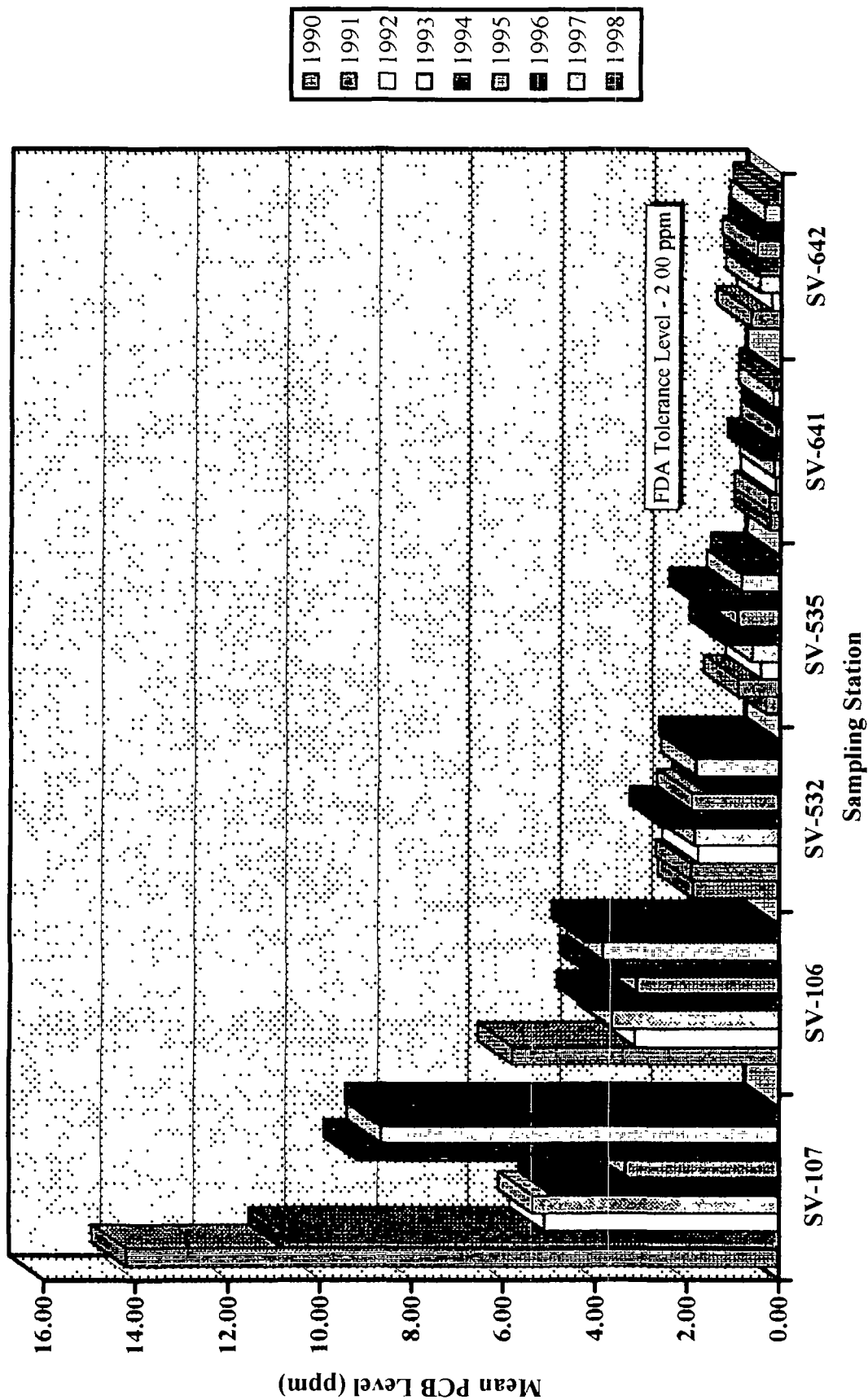


Figure 4 - PCB Levels in Largemouth Bass Fillet Samples (1990-1998),
Lake Hartwell OU2 Fish Study

Hybrid Bass

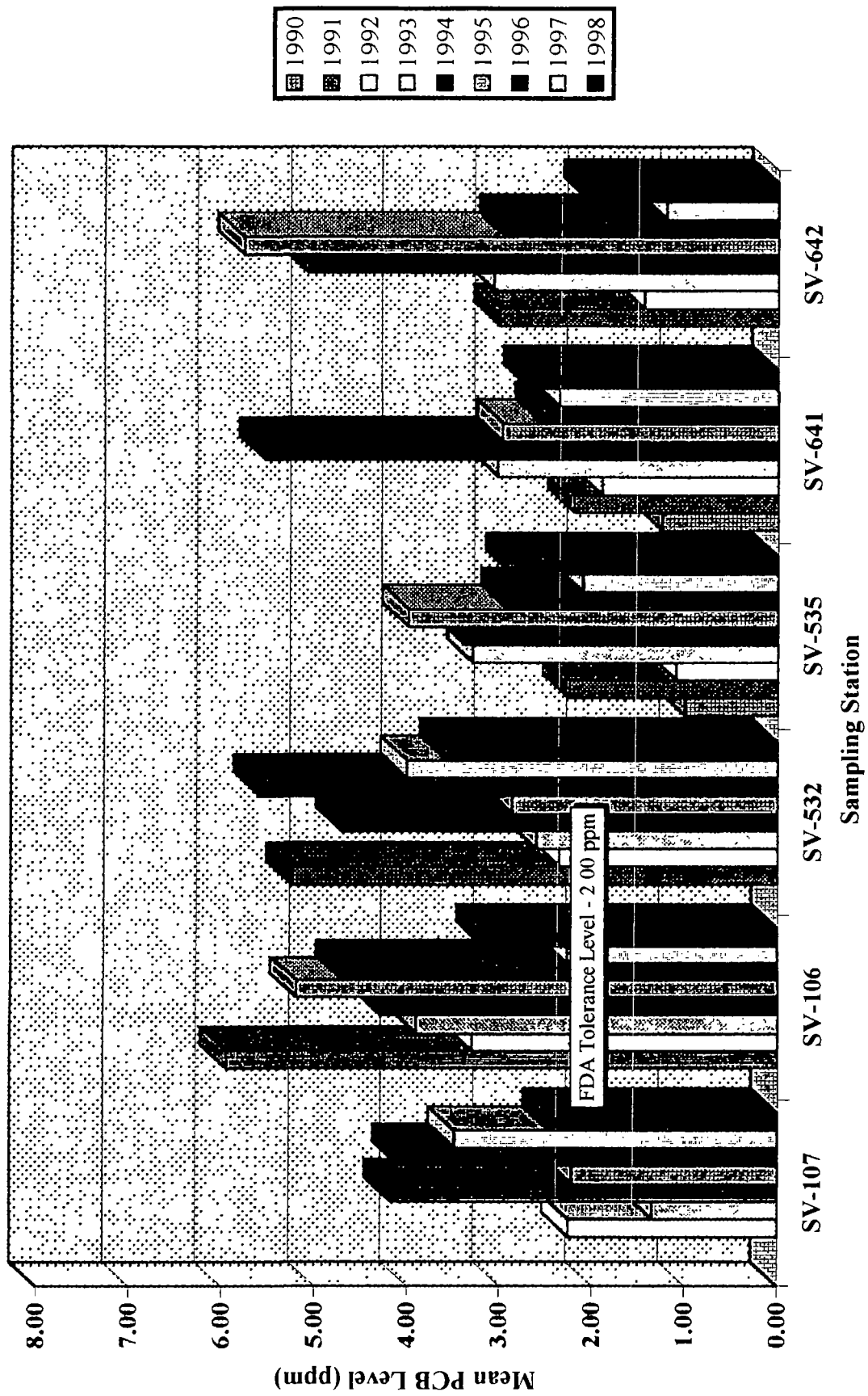


Figure 5 - PCB Levels in Hybrid Bass Fillet Samples (1990-1998),
Lake Hartwell OU2 Fish Study

Channel Catfish

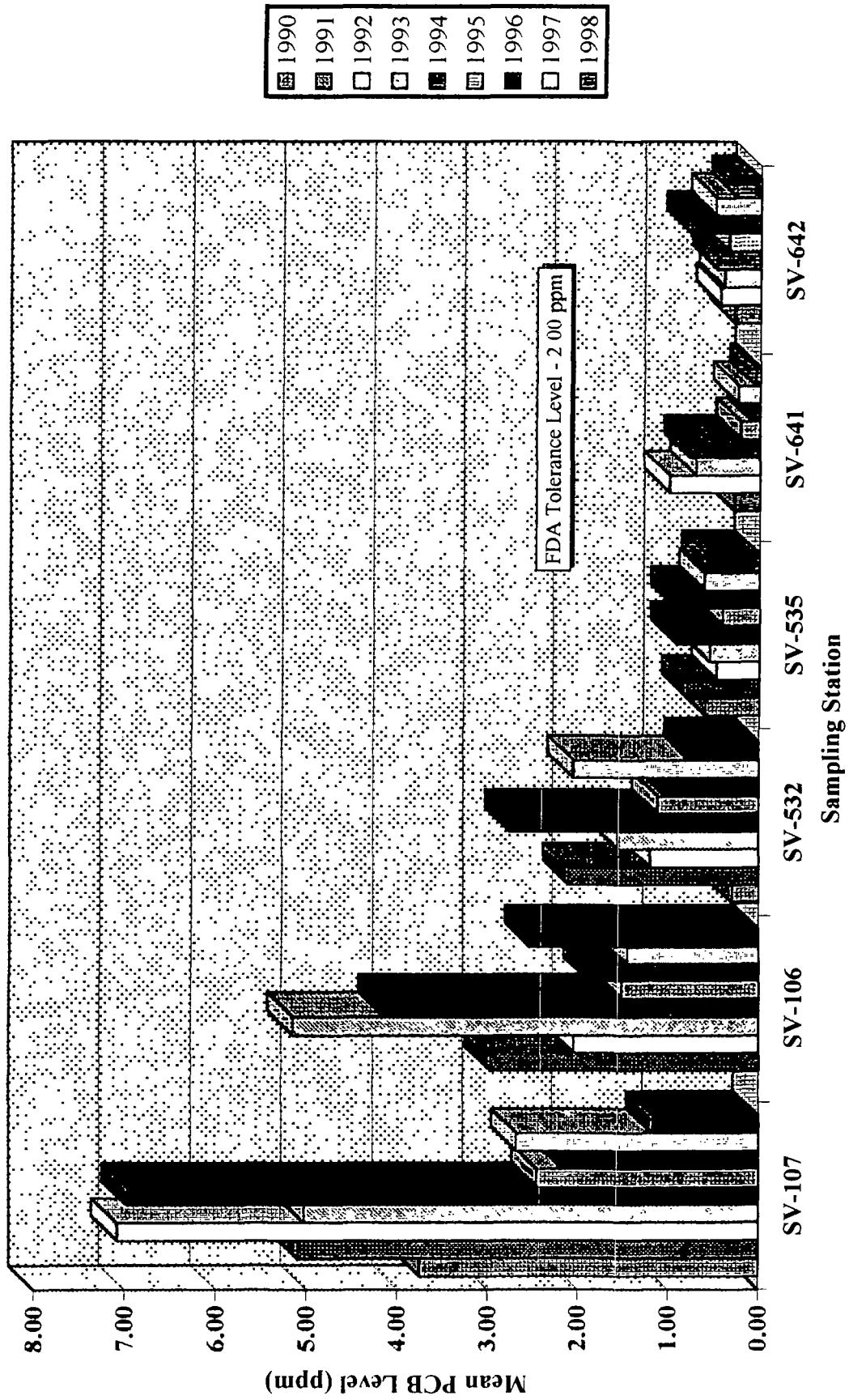


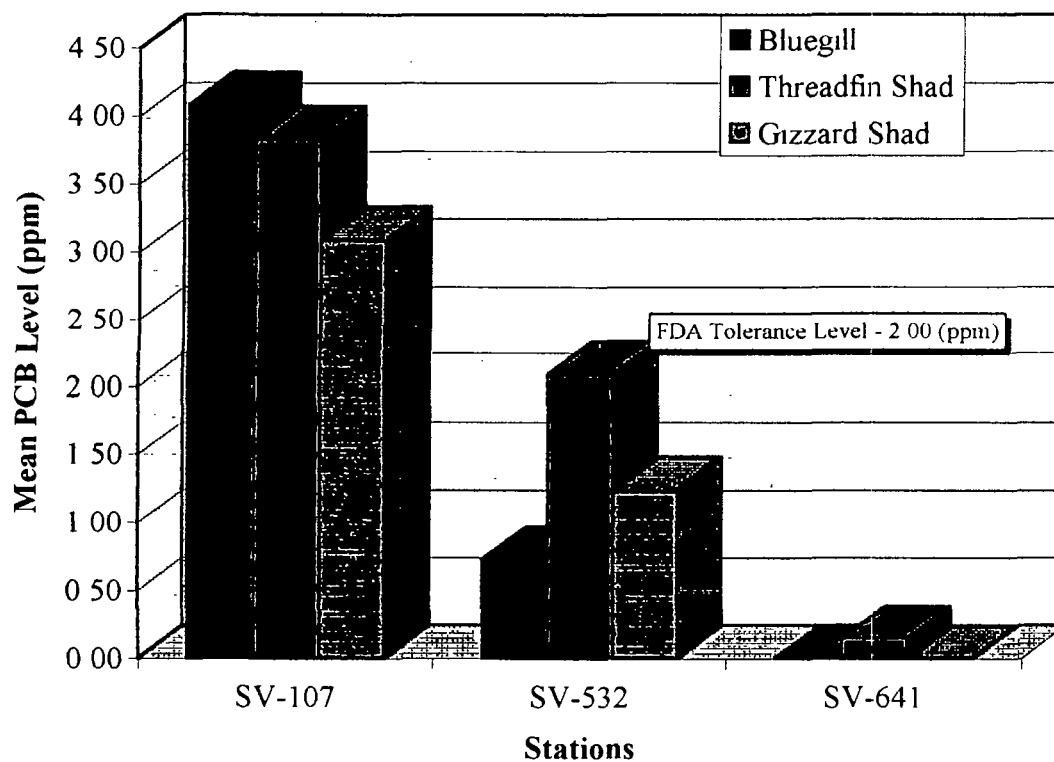
Figure 6 - PCB Levels in Channel Catfish Fillet Samples (1990-1998),
Lake Hartwell OU2 Fish Study

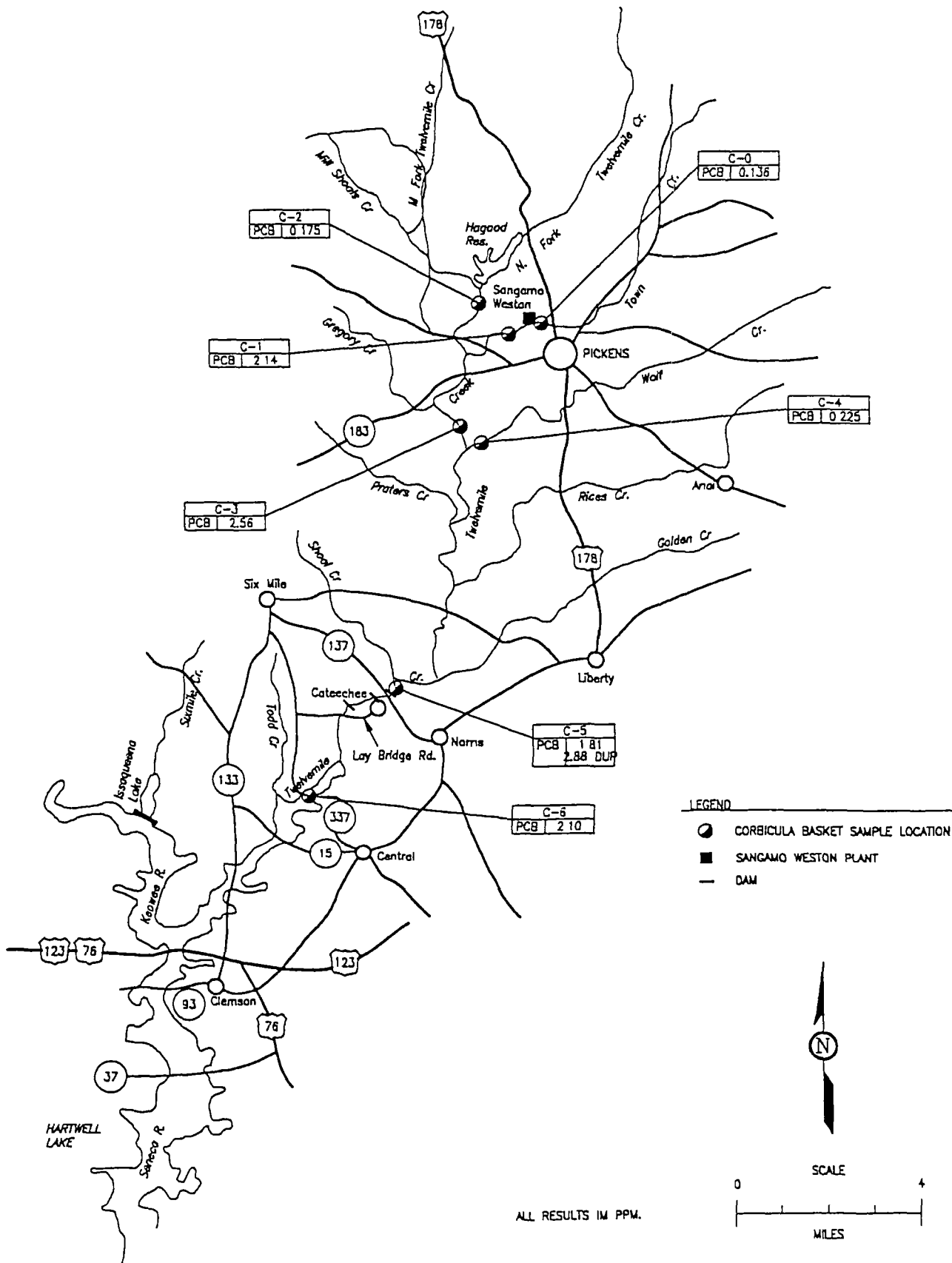
Table 6 1998 Lake Hartwell OU2 Fish Study Total PCB Concentrations (ppm) in Bluegill, Threadfin Shad, and Gizzard Shad Composites
RMT, Inc., Stafford, Texas

Species	Station					
Composite	SV-107	SV-106	SV-532	SV-535	SV-641	SV-642
Bluegill	4 08	NA	0 728	NA	0	NA
Threadfin Shad	3 83	NA	2 09	NA	0 148	NA
Gizzard Shad	3 09	NA	1 24	NA	0	NA

d = duplicate

Bluegill, Threadfin Shad, and Gizzard Shad





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CORBICULA BASKET SAMPLING LOCATIONS IN TWELVEMILE CREEK WATERSHED SPRING 1998

FIGURE

11

Corbicula

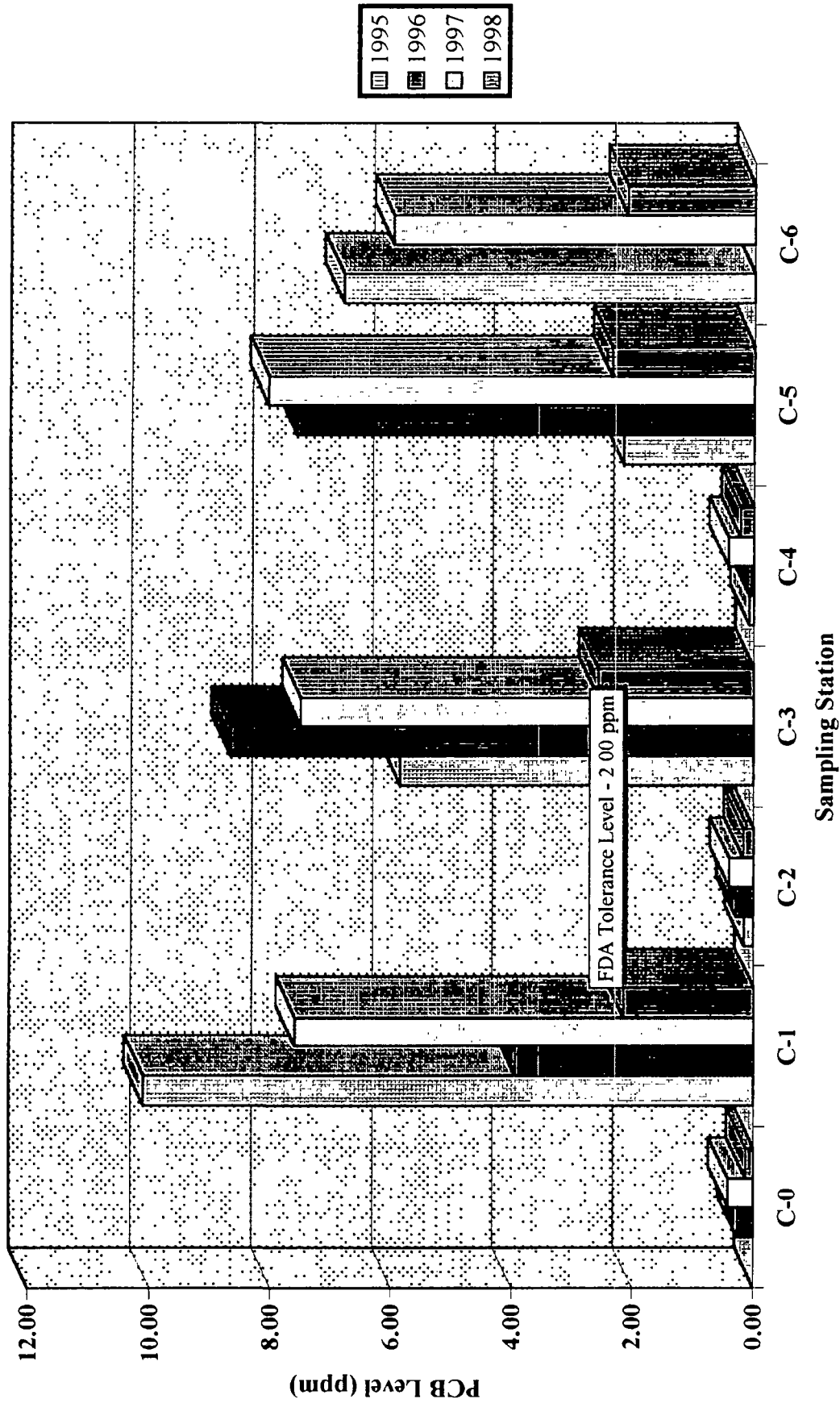


Figure 12 - PCB Levels in Corbicula Composite Samples (1995-1998),
Lake Hartwell OU2 Fish Study

Appendix B
Sediment Analytical Data Sheets

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-000	NEA ID:	AB02448		
MATRIX :	SEDIMENT	DATE SAMPLED.	4/24/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT	4517, SCHLUM-I
SAMPLED BY.	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.153	µg/g	5/17/98	
Aroclor 1221	ND	0.153	µg/g	5/17/98	
Aroclor 1232	ND	0.153	µg/g	5/17/98	
Aroclor 1242	ND	0.153	µg/g	5/17/98	
Aroclor 1248	ND	0.153	µg/g	5/17/98	
Aroclor 1254	ND	0.153	µg/g	5/17/98	
Aroclor 1260	ND	0.153	µg/g	5/17/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-001	NEA ID.	AB02449		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/24/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
---------------------	---------	-----	-------	-------------	-------

SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.142	µg/g	5/17/98
Aroclor 1221	ND	0.142	µg/g	5/17/98
Aroclor 1232	ND	0.142	µg/g	5/17/98
Aroclor 1242	ND	0.142	µg/g	5/17/98
Aroclor 1248	ND	0.142	µg/g	5/17/98
Aroclor 1254	ND	0.142	µg/g	5/17/98
Aroclor 1260	ND	0.142	µg/g	5/17/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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CONTACT: JIM ORR

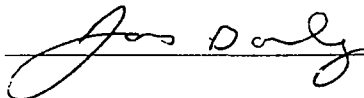
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SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO.	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.138	µg/g	5/17/98	
Aroclor 1221	ND	0.138	µg/g	5/17/98	
Aroclor 1232	ND	0.138	µg/g	5/17/98	
Aroclor 1242	ND	0.138	µg/g	5/17/98	
Aroclor 1248	ND	0.138	µg/g	5/17/98	
Aroclor 1254	0.229	0.138	µg/g	5/17/98	AF
Aroclor 1260	ND	0.138	µg/g	5/17/98	
Total PCB Amount > Reporting Limit	0.229				

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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CONTACT: JIM ORR

CUSTOMER ID:	SD-003	NEA ID	AB02451		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/24/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.145	µg/g	5/17/98	
Aroclor 1221	ND	0.145	µg/g	5/17/98	
Aroclor 1232	ND	0.145	µg/g	5/17/98	
Aroclor 1242	ND	0.145	µg/g	5/17/98	
Aroclor 1248	ND	0.145	µg/g	5/17/98	
Aroclor 1254	ND	0.145	µg/g	5/17/98	
Aroclor 1260	ND	0.145	µg/g	5/17/98	
Total PCB Amount > Reporting Limit	0				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
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CONTACT: JIM ORR

CUSTOMER ID: SD-004 NEA ID AB02452
MATRIX : SEDIMENT DATE SAMPLED: 4/24/98 TIME: N/A
DATE RECEIVED: 4/30/98 TIME: 10 30 PROJECT: 4517, SCHLUM-I
SAMPLED BY. N/A LOCATION N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.153	µg/g	5/18/98	
Aroclor 1221	ND	0.153	µg/g	5/18/98	
Aroclor 1232	ND	0.153	µg/g	5/18/98	
Aroclor 1242	0.274	0.153	µg/g	5/18/98	PD
Aroclor 1248	ND	0.153	µg/g	5/18/98	
Aroclor 1254	0.490	0.153	µg/g	5/18/98	AF
Aroclor 1260	ND	0.153	µg/g	5/18/98	
Total PCB Amount > Reporting Limit	0.764				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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CONTACT JIM ORR

CUSTOMER ID: SD-005 NEA ID: AB02453
MATRIX: SEDIMENT DATE SAMPLED: 4/24/98 TIME: N/A
DATE RECEIVED: 4/30/98 TIME: 10 30 PROJECT 4517, SCHLUM-1
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
---------------------	---------	-----	-------	-------------	-------

SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.145	µg/g	5/18/98	
Aroclor 1221	ND	0.145	µg/g	5/18/98	
Aroclor 1232	ND	0.145	µg/g	5/18/98	
Aroclor 1242	ND	0.145	µg/g	5/18/98	
Aroclor 1248	ND	0.145	µg/g	5/18/98	
Aroclor 1254	ND	0.145	µg/g	5/18/98	
Aroclor 1260	ND	0.145	µg/g	5/18/98	

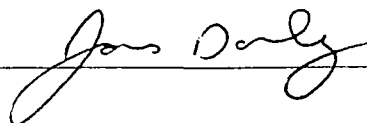
Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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CONTACT: JIM ORR

CUSTOMER ID: DUP 2 *9567* NEA ID: AB02454
MATRIX: SEDIMENT DATE SAMPLED: 4/24/98 TIME: N/A
DATE RECEIVED: 4/30/98 TIME: 10 30 PROJECT: 4517, SCHLUM-I
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
---------------------	---------	-----	-------	-------------	-------

SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.151	µg/g	5/18/98	
Aroclor 1221	ND	0.151	µg/g	5/18/98	
Aroclor 1232	ND	0.151	µg/g	5/18/98	
Aroclor 1242	0.403	0.151	µg/g	5/18/98	PD
Aroclor 1248	ND	0.151	µg/g	5/18/98	
Aroclor 1254	0.558	0.151	µg/g	5/18/98	AF
Aroclor 1260	ND	0.151	µg/g	5/18/98	

Total PCB Amount > Reporting Limit 0.961

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-06	NEA ID:	AB02336	
MATRIX :	SEDIMENT	DATE SAMPLED:	4/22/98	TIME: 17 00
DATE RECEIVED:	4/24/98	TIME: 9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A	
CUSTOMER PO:	N/A	LAB ELAP #:	11078	

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
---------------------	---------	-----	-------	-------------	-------

SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.141	µg/g	5/6/98	
Aroclor 1221	ND	0.141	µg/g	5/6/98	
Aroclor 1232	ND	0.141	µg/g	5/6/98	
Aroclor 1242	0.255	0.141	µg/g	5/6/98	PD
Aroclor 1248	ND	0.141	µg/g	5/6/98	
Aroclor 1254	ND	0.141	µg/g	5/6/98	
Aroclor 1260	ND	0.141	µg/g	5/6/98	

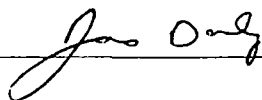
Total PCB Amount > Reporting Limit 0.255

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-07	NEA ID:	AB02337		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/22/98	TIME:	17 15
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

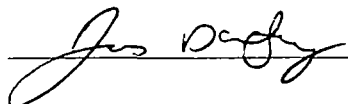
PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.142	µg/g	5/6/98	
Aroclor 1221	ND	0.142	µg/g	5/6/98	
Aroclor 1232	ND	0.142	µg/g	5/6/98	
Aroclor 1242	ND	0.142	µg/g	5/6/98	
Aroclor 1248	0.283	0.142	µg/g	5/6/98	AE
Aroclor 1254	ND	0.142	µg/g	5/6/98	
Aroclor 1260	ND	0.142	µg/g	5/6/98	

Total PCB Amount > Reporting Limit 0.283

AE-Aroclor 1248 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-08	NEA ID:	AB02338	
MATRIX :	SEDIMENT	DATE SAMPLED	4/22/98	TIME: 17 30
DATE RECEIVED:	4/24/98	TIME: 9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A	
CUSTOMER PO:	N/A	LAB ELAP #:	11078	

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.141	µg/g	5/6/98	
Aroclor 1221	ND	0.141	µg/g	5/6/98	
Aroclor 1232	ND	0.141	µg/g	5/6/98	
Aroclor 1242	ND	0.141	µg/g	5/6/98	
Aroclor 1248	ND	0.141	µg/g	5/6/98	
Aroclor 1254	ND	0.141	µg/g	5/6/98	
Aroclor 1260	ND	0.141	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	0				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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BRENTWOOD, TN 37027
CONTACT: JIM ORR

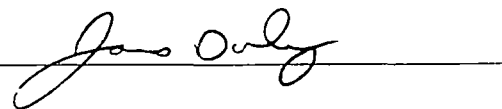
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MATRIX : SEDIMENT DATE SAMPLED: 4/22/98 TIME: 17 45
DATE RECEIVED: 4/24/98 TIME 9 30 PROJECT: 4517. SCHLUM
SAMPLED BY: N/A LOCATION N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.285	µg/g	5/6/98	
Aroclor 1221	ND	0.285	µg/g	5/6/98	
Aroclor 1232	ND	0.285	µg/g	5/6/98	
Aroclor 1242	0.738	0.285	µg/g	5/6/98	PD
Aroclor 1248	ND	0.285	µg/g	5/6/98	
Aroclor 1254	1.34	0.285	µg/g	5/6/98	
Aroclor 1260	0.334	0.285	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	2.41				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL ENVIRONMENTAL LAB SERVICES

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5/13/98

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID:	SD-10	NEA ID:	AB02340		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/22/98	TIME:	18 30
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

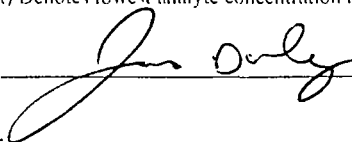
PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.257	µg/g	5/6/98	
Aroclor 1221	ND	0.257	µg/g	5/6/98	
Aroclor 1232	ND	0.257	µg/g	5/6/98	
Aroclor 1242	1.03	0.257	µg/g	5/6/98	PD
Aroclor 1248	ND	0.257	µg/g	5/6/98	
Aroclor 1254	1.02	0.257	µg/g	5/6/98	
Aroclor 1260	ND	0.257	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	2.05				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID.	SD-11	NEA ID.	AB02341		
MATRIX :	SEDIMENT	DATE SAMPLED	4/22/98	TIME.	18 45
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.343	µg/g	5/6/98	
Aroclor 1221	ND	0.343	µg/g	5/6/98	
Aroclor 1232	ND	0.343	µg/g	5/6/98	
Aroclor 1242	1.66	0.343	µg/g	5/6/98	PD
Aroclor 1248	ND	0.343	µg/g	5/6/98	
Aroclor 1254	1.17	0.343	µg/g	5/6/98	
Aroclor 1260	ND	0.343	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	2.83				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-12	NEA ID.	AB02342		
MATRIX:	SEDIMENT	DATE SAMPLED:	4/22/98	TIME:	19 00
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.479	µg/g	5/6/98	PD
Aroclor 1221	ND	0.479	µg/g	5/6/98	
Aroclor 1232	ND	0.479	µg/g	5/6/98	
Aroclor 1242	1.45	0.479	µg/g	5/6/98	
Aroclor 1248	ND	0.479	µg/g	5/6/98	
Aroclor 1254	1.08	0.479	µg/g	5/6/98	
Aroclor 1260	ND	0.479	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	2.53				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-13	NEA ID	AB02343		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/22/98	TIME:	19 15
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.344	µg/g	5/6/98	PD
Aroclor 1221	ND	0.344	µg/g	5/6/98	
Aroclor 1232	ND	0.344	µg/g	5/6/98	
Aroclor 1242	1.69	0.344	µg/g	5/6/98	
Aroclor 1248	ND	0.344	µg/g	5/6/98	
Aroclor 1254	0.561	0.344	µg/g	5/6/98	
Aroclor 1260	ND	0.344	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	2.25				

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-14	NEA ID:	AB02344		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/22/98	TIME:	19 30
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.334	µg/g	5/6/98	PD
Aroclor 1221	ND	0.334	µg/g	5/6/98	
Aroclor 1232	ND	0.334	µg/g	5/6/98	
Aroclor 1242	0.906	0.334	µg/g	5/6/98	
Aroclor 1248	ND	0.334	µg/g	5/6/98	
Aroclor 1254	0.406	0.334	µg/g	5/6/98	
Aroclor 1260	ND	0.334	µg/g	5/6/98	

Total PCB Amount > Reporting Limit 1.31

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: DUP-I 1009 NEA ID: AB02345
MATRIX: SEDIMENT DATE SAMPLED: 4/22/98 TIME: 17 45
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.290	µg/g	5/6/98	
Aroclor 1221	ND	0.290	µg/g	5/6/98	
Aroclor 1232	ND	0.290	µg/g	5/6/98	
Aroclor 1242	1.70	0.290	µg/g	5/6/98	PD
Aroclor 1248	ND	0.290	µg/g	5/6/98	
Aroclor 1254	1.13	0.290	µg/g	5/6/98	
Aroclor 1260	ND	0.290	µg/g	5/6/98	

Total PCB Amount > Reporting Limit 2.83

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-15	NEA ID:	AB02442		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT	4517, SCHLUM-I
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.291	µg/g	5/17/98	
Aroclor 1221	ND	0.291	µg/g	5/17/98	
Aroclor 1232	ND	0.291	µg/g	5/17/98	
Aroclor 1242	0.712	0.291	µg/g	5/17/98	PD
Aroclor 1248	ND	0.291	µg/g	5/17/98	
Aroclor 1254	0.320	0.291	µg/g	5/17/98	AF
Aroclor 1260	ND	0.291	µg/g	5/17/98	

Total PCB Amount > Reporting Limit 1.03

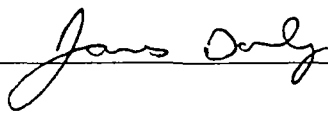
PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-106	NEA ID:	AB02443		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

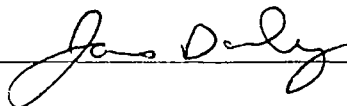
Aroclor 1016	ND	0.425	µg/g	5/17/98	
Aroclor 1221	ND	0.425	µg/g	5/17/98	
Aroclor 1232	ND	0.425	µg/g	5/17/98	
Aroclor 1242	0.514	0.425	µg/g	5/17/98	PD
Aroclor 1248	ND	0.425	µg/g	5/17/98	
Aroclor 1254	ND	0.425	µg/g	5/17/98	
Aroclor 1260	ND	0.425	µg/g	5/17/98	

Total PCB Amount > Reporting Limit 0.514

PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-532	NEA ID.	AB02444		
MATRIX .	SEDIMENT	DATE SAMPLED.	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 209	µg/g	5/17/98	
Aroclor 1221	ND	0 209	µg/g	5/17/98	
Aroclor 1232	ND	0 209	µg/g	5/17/98	
Aroclor 1242	0 425	0 209	µg/g	5/17/98	PD
Aroclor 1248	ND	0 209	µg/g	5/17/98	
Aroclor 1254	0 456	0 209	µg/g	5/17/98	AF
Aroclor 1260	ND	0 209	µg/g	5/17/98	

Total PCB Amount > Reporting Limit 0 881

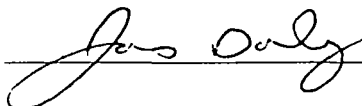
PD-Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-535	NEA ID	AB02445		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED.	4/30/98	TIME:	10 30	PROJECT.	4517, SCHLUM-I
SAMPLED BY:	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.274	µg/g	5/17/98
Aroclor 1221	ND	0.274	µg/g	5/17/98
Aroclor 1232	ND	0.274	µg/g	5/17/98
Aroclor 1242	ND	0.274	µg/g	5/17/98
Aroclor 1248	ND	0.274	µg/g	5/17/98
Aroclor 1254	ND	0.274	µg/g	5/17/98
Aroclor 1260	ND	0.274	µg/g	5/17/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-641	NEA ID:	AB02447		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO.	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.215	µg/g	5/17/98
Aroclor 1221	ND	0.215	µg/g	5/17/98
Aroclor 1232	ND	0.215	µg/g	5/17/98
Aroclor 1242	ND	0.215	µg/g	5/17/98
Aroclor 1248	ND	0.215	µg/g	5/17/98
Aroclor 1254	ND	0.215	µg/g	5/17/98
Aroclor 1260	ND	0.215	µg/g	5/17/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SD-642	NEA ID:	AB02446		
MATRIX :	SEDIMENT	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT	4517, SCHLUM-I
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

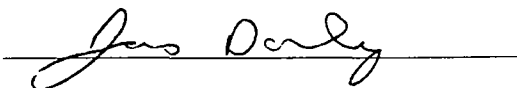
Aroclor 1016	ND	0.247	µg/g	5/17/98
Aroclor 1221	ND	0.247	µg/g	5/17/98
Aroclor 1232	ND	0.247	µg/g	5/17/98
Aroclor 1242	ND	0.247	µg/g	5/17/98
Aroclor 1248	ND	0.247	µg/g	5/17/98
Aroclor 1254	ND	0.247	µg/g	5/17/98
Aroclor 1260	ND	0.247	µg/g	5/17/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

MATRIX : SEDIMENT DATE SAMPLED 4/22/98
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT 4517 SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

NEA ID	CUSTOMER ID	METHOD	RESULTS	PQL	UNITS	DATE TESTED
AB02336	SD-06	Total Organic Carbon	1500	1200	mg/kg	5/4/98
AB02337	SD-07	Total Organic Carbon	5100	4400	mg/kg	5/4/98
AB02338	SD-08	Total Organic Carbon	1500	880	mg/kg	5/4/98
AB02339	SD-09	Total Organic Carbon	23000	3900	mg/kg	5/4/98
AB02340	SD-10	Total Organic Carbon	18000	11000	mg/kg	5/4/98
AB02341	SD-11	Total Organic Carbon	29000	13000	mg/kg	5/4/98
AB02342	SD-12	Total Organic Carbon	35000	14000	mg/kg	5/4/98
AB02343	SD-13	Total Organic Carbon	25000	9700	mg/kg	5/4/98
AB02344	SD-14	Total Organic Carbon	21000	10000	mg/kg	5/4/98
AB02345	DUP-1	Total Organic Carbon	29000	4700	mg/kg	5/4/98

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE



Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

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5/11/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

MATRIX : SOIL PROJECT 4517, SCHLUM
DATE RECEIVED: 4/30/98 TIME: 10 30 LOCATION: N/A
SAMPLED BY: J ORR LAB ELAP #: 11078
CUSTOMER PO: N/A

NEA ID	CUSTOMER ID	METHOD	DATE SAMPLED	RESULTS	PQL	UNITS	DATE TESTED
AB02442	SD-15	Total Organic Carbon	4/23/98	25000	4600	mg/kg	5/5/98
AB02443	SD-106	Total Organic Carbon	4/23/98	32000	7000	mg/kg	5/5/98
AB02444	SD-532	Total Organic Carbon	4/23/98	25000	3300	mg/kg	5/5/98
AB02445	SD-535	Total Organic Carbon	4/23/98	24000	6100	mg/kg	5/5/98
AB02446	SD-642	Total Organic Carbon	4/23/98	29000	4800	mg/kg	5/6/98
AB02447	SD-641	Total Organic Carbon	4/23/98	13000	4700	mg/kg	5/5/98
AB02448	SD-000	Total Organic Carbon	4/24/98	2400	1200	mg/kg	5/6/98
AB02449	SD-001	Total Organic Carbon	4/24/98	1500	1200	mg/kg	5/6/98
AB02450	SD-002	Total Organic Carbon	4/24/98	1400	1300	mg/kg	5/6/98
AB02451	SD-003	Total Organic Carbon	4/24/98	2000	1400	mg/kg	5/6/98
AB02452	SD-004	Total Organic Carbon	4/24/98	2300	1400	mg/kg	5/6/98
AB02453	SD-005	Total Organic Carbon	4/24/98	ND	1300	mg/kg	5/6/98
AB02454	DUP 2	Total Organic Carbon	4/24/98	2400	1500	mg/kg	5/6/98

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner Laboratory Director

Appendix A
Fish Analytical Data Sheets

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-01	NEA ID:	AB02065		
MATRIX:	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME	9 45	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

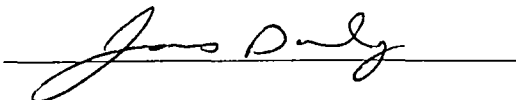
Aroclor 1016	ND	0.336	µg/g	4/30/98
Aroclor 1221	ND	0.336	µg/g	4/30/98
Aroclor 1232	ND	0.336	µg/g	4/30/98
Aroclor 1242	ND	0.336	µg/g	4/30/98
Aroclor 1248	ND	0.336	µg/g	4/30/98
Aroclor 1254	6.33	0.336	µg/g	4/30/98
Aroclor 1260	0.550	0.336	µg/g	4/30/98

Total PCB Amount > Reporting Limit 6.88

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

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ERM SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-02	NEA ID:	AB02066		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.896	µg/g	4/30/98	
Aroclor 1221	ND	0.896	µg/g	4/30/98	
Aroclor 1232	ND	0.896	µg/g	4/30/98	
Aroclor 1242	ND	0.896	µg/g	4/30/98	
Aroclor 1248	ND	0.896	µg/g	4/30/98	
Aroclor 1254	9.61	0.896	µg/g	4/30/98	
Aroclor 1260	1.18	0.896	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	10.8				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-03	NEA ID:	AB02067		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT.	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.896	µg/g	4/30/98
Aroclor 1221	ND	0.896	µg/g	4/30/98
Aroclor 1232	ND	0.896	µg/g	4/30/98
Aroclor 1242	ND	0.896	µg/g	4/30/98
Aroclor 1248	ND	0.896	µg/g	4/30/98
Aroclor 1254	10.5	0.896	µg/g	4/30/98
Aroclor 1260	1.95	0.896	µg/g	4/30/98

Total PCB Amount > Reporting Limit 12.4

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-03D NEA ID: AB02429
MATRIX : FISH DATE SAMPLED: 4/14/98 TIME: N/A
DATE RECEIVED: 4/16/98 TIME: 9 45 PROJECT: 4517, SCHLUM
SAMPLED BY: J ORR LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

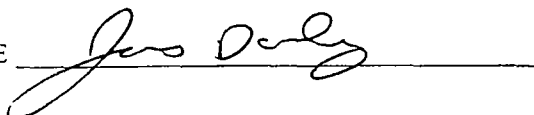
Aroclor 1016	ND	0 896	µg/g	5/1/98	
Aroclor 1221	ND	0 896	µg/g	5/1/98	
Aroclor 1232	ND	0 896	µg/g	5/1/98	
Aroclor 1242	ND	0 896	µg/g	5/1/98	
Aroclor 1248	ND	0 896	µg/g	5/1/98	
Aroclor 1254	7 00	0 896	µg/g	5/1/98	
Aroclor 1260	1 60	0 896	µg/g	5/1/98	

Total PCB Amount > Reporting Limit 8 6

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E Wagner Laboratory Director

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-04	NEA ID.	AB02068		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME.	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.336	µg/g	4/30/98	
Aroclor 1221	ND	0.336	µg/g	4/30/98	
Aroclor 1232	ND	0.336	µg/g	4/30/98	
Aroclor 1242	ND	0.336	µg/g	4/30/98	
Aroclor 1248	ND	0.336	µg/g	4/30/98	
Aroclor 1254	3.53	0.336	µg/g	4/30/98	
Aroclor 1260	0.348	0.336	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	3.88				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-05	NEA ID:	AB02069		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	4/30/98	
Aroclor 1221	ND	0.112	µg/g	4/30/98	
Aroclor 1232	ND	0.112	µg/g	4/30/98	
Aroclor 1242	ND	0.112	µg/g	4/30/98	
Aroclor 1248	ND	0.112	µg/g	4/30/98	
Aroclor 1254	1.40	0.112	µg/g	4/30/98	
Aroclor 1260	0.488	0.112	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	1.89				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-07	NEA ID:	AB02071		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

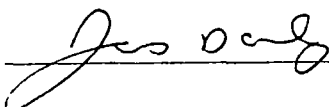
Aroclor 1016	ND	0.336	µg/g	5/7/98
Aroclor 1221	ND	0.336	µg/g	5/7/98
Aroclor 1232	ND	0.336	µg/g	5/7/98
Aroclor 1242	ND	0.336	µg/g	5/7/98
Aroclor 1248	ND	0.336	µg/g	5/7/98
Aroclor 1254	3.73	0.336	µg/g	5/7/98
Aroclor 1260	0.798	0.336	µg/g	5/7/98

Total PCB Amount > Reporting Limit 4.53

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-08 NEA ID: AB02072
MATRIX: FISH DATE SAMPLED: 4/14/98 TIME: N/A
DATE RECEIVED: 4/16/98 TIME: 9 45 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	4/30/98
Aroclor 1221	ND	0.112	µg/g	4/30/98
Aroclor 1232	ND	0.112	µg/g	4/30/98
Aroclor 1242	ND	0.112	µg/g	4/30/98
Aroclor 1248	ND	0.112	µg/g	4/30/98
Aroclor 1254	0.581	0.112	µg/g	4/30/98
Aroclor 1260	ND	0.112	µg/g	4/30/98

Total PCB Amount > Reporting Limit 0.581

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-09	NEA ID:	AB02073		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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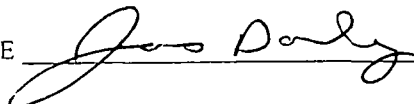
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	4/30/98
Aroclor 1221	ND	0.112	µg/g	4/30/98
Aroclor 1232	ND	0.112	µg/g	4/30/98
Aroclor 1242	ND	0.112	µg/g	4/30/98
Aroclor 1248	ND	0.112	µg/g	4/30/98
Aroclor 1254	0.994	0.112	µg/g	4/30/98
Aroclor 1260	0.230	0.112	µg/g	4/30/98

Total PCB Amount > Reporting Limit 1.22

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner, Laboratory Director

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-10	NEA ID:	AB02074		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/7/98	
Aroclor 1221	ND	0.112	µg/g	5/7/98	
Aroclor 1232	ND	0.112	µg/g	5/7/98	
Aroclor 1242	ND	0.112	µg/g	5/7/98	
Aroclor 1248	ND	0.112	µg/g	5/7/98	
Aroclor 1254	1.40	0.112	µg/g	5/7/98	
Aroclor 1260	0.207	0.112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	1.61				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT. JIM ORR

CUSTOMER ID:	SV107-10D	NEA ID:	AB02430		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	J ORR	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
---------------------	---------	-----	-------	-------------	-------

SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 112	µg/g	5/4/98
Aroclor 1221	ND	0 112	µg/g	5/4/98
Aroclor 1232	ND	0 112	µg/g	5/4/98
Aroclor 1242	ND	0 112	µg/g	5/4/98
Aroclor 1248	ND	0 112	µg/g	5/4/98
Aroclor 1254	1 06	0 112	µg/g	5/4/98
Aroclor 1260	0 203	0 112	µg/g	5/4/98

Total PCB Amount > Reporting Limit 1 26

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc
Robert E Wagner, Laboratory Director

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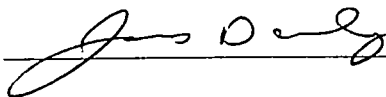
ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-11	NEA ID:	AB02075		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	4/30/98	
Aroclor 1221	ND	0.224	µg/g	4/30/98	
Aroclor 1232	ND	0.224	µg/g	4/30/98	
Aroclor 1242	ND	0.224	µg/g	4/30/98	
Aroclor 1248	ND	0.224	µg/g	4/30/98	
Aroclor 1254	1.24	0.224	µg/g	4/30/98	
Aroclor 1260	0.224	0.224	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	1.46				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS

5/7/98

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-12	NEA ID:	AB02076		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

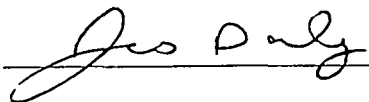
Aroclor 1016	ND	0.336	µg/g	4/30/98
Aroclor 1221	ND	0.336	µg/g	4/30/98
Aroclor 1232	ND	0.336	µg/g	4/30/98
Aroclor 1242	ND	0.336	µg/g	4/30/98
Aroclor 1248	ND	0.336	µg/g	4/30/98
Aroclor 1254	2.59	0.336	µg/g	4/30/98
Aroclor 1260	0.498	0.336	µg/g	4/30/98

Total PCB Amount > Reporting Limit 3.09

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



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Robert E. Wagner, Laboratory Director

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ENVIRONMENTAL LAB SERVICES

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-13	NEA ID:	AB02077		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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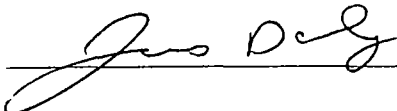
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 448	µg/g	4/30/98
Aroclor 1221	ND	0 448	µg/g	4/30/98
Aroclor 1232	ND	0 448	µg/g	4/30/98
Aroclor 1242	ND	0 448	µg/g	4/30/98
Aroclor 1248	ND	0 448	µg/g	4/30/98
Aroclor 1254	3 42	0 448	µg/g	4/30/98
Aroclor 1260	0 662	0 448	µg/g	4/30/98

Total PCB Amount > Reporting Limit 4 08

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-15 NEA ID: AB02130
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

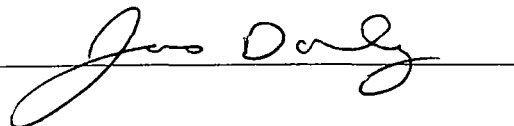
Aroclor 1016	ND	0.224	µg/g	5/7/98
Aroclor 1221	ND	0.224	µg/g	5/7/98
Aroclor 1232	ND	0.224	µg/g	5/7/98
Aroclor 1242	ND	0.224	µg/g	5/7/98
Aroclor 1248	ND	0.224	µg/g	5/7/98
Aroclor 1254	2.31	0.224	µg/g	5/7/98
Aroclor 1260	0.434	0.224	µg/g	5/7/98

Total PCB Amount > Reporting Limit 2.74

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT, JIM ORR

CUSTOMER ID:	SV107-16	NEA ID.	AB02129		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/7/98
Aroclor 1221	ND	0.224	µg/g	5/7/98
Aroclor 1232	ND	0.224	µg/g	5/7/98
Aroclor 1242	ND	0.224	µg/g	5/7/98
Aroclor 1248	ND	0.224	µg/g	5/7/98
Aroclor 1254	2.85	0.224	µg/g	5/7/98
Aroclor 1260	0.539	0.224	µg/g	5/7/98

Total PCB Amount > Reporting Limit 3.39

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-17 NEA ID: AB02131
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.784	µg/g	5/1/98
Aroclor 1221	ND	0.784	µg/g	5/1/98
Aroclor 1232	ND	0.784	µg/g	5/1/98
Aroclor 1242	ND	0.784	µg/g	5/1/98
Aroclor 1248	ND	0.784	µg/g	5/1/98
Aroclor 1254	5.32	0.784	µg/g	5/1/98
Aroclor 1260	1.06	0.784	µg/g	5/1/98

Total PCB Amount > Reporting Limit 6.38

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-18 NEA ID: AB02187
MATRIX : FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.448	µg/g	5/5/98	
Aroclor 1221	ND	0.448	µg/g	5/5/98	
Aroclor 1232	ND	0.448	µg/g	5/5/98	
Aroclor 1242	ND	0.448	µg/g	5/5/98	
Aroclor 1248	ND	0.448	µg/g	5/5/98	
Aroclor 1254	4.39	0.448	µg/g	5/5/98	
Aroclor 1260	0.983	0.448	µg/g	5/5/98	
Total PCB Amount > Reporting Limit	5.37				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE _____

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-19	NEA ID:	AB02188		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.896	µg/g	5/5/98
Aroclor 1221	ND	0.896	µg/g	5/5/98
Aroclor 1232	ND	0.896	µg/g	5/5/98
Aroclor 1242	ND	0.896	µg/g	5/5/98
Aroclor 1248	ND	0.896	µg/g	5/5/98
Aroclor 1254	10.8	0.896	µg/g	5/5/98
Aroclor 1260	1.90	0.896	µg/g	5/5/98

Total PCB Amount > Reporting Limit 12.7

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

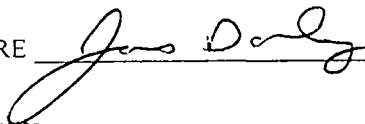
CUSTOMER ID:	SV107-20	NEA ID:	AB02189		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.896	µg/g	5/6/98	
Aroclor 1221	ND	0.896	µg/g	5/6/98	
Aroclor 1232	ND	0.896	µg/g	5/6/98	
Aroclor 1242	ND	0.896	µg/g	5/6/98	
Aroclor 1248	ND	0.896	µg/g	5/6/98	
Aroclor 1254	9.50	0.896	µg/g	5/6/98	
Aroclor 1260	1.42	0.896	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	10.9				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-21	NEA ID:	AB02190		
MATRIX:	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

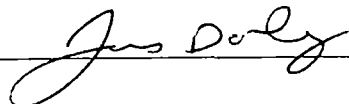
Aroclor 1016	ND	1 12	µg/g	5/6/98
Aroclor 1221	ND	1 12	µg/g	5/6/98
Aroclor 1232	ND	1 12	µg/g	5/6/98
Aroclor 1242	ND	1 12	µg/g	5/6/98
Aroclor 1248	ND	1 12	µg/g	5/6/98
Aroclor 1254	14 9	1 12	µg/g	5/6/98
Aroclor 1260	2 27	1 12	µg/g	5/6/98

Total PCB Amount > Reporting Limit 17 2

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc.
Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-22	NEA ID:	AB02191		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.336	µg/g	5/6/98	
Aroclor 1221	ND	0.336	µg/g	5/6/98	
Aroclor 1232	ND	0.336	µg/g	5/6/98	
Aroclor 1242	ND	0.336	µg/g	5/6/98	
Aroclor 1248	ND	0.336	µg/g	5/6/98	
Aroclor 1254	2.85	0.336	µg/g	5/6/98	
Aroclor 1260	1.06	0.336	µg/g	5/6/98	
Total PCB Amount > Reporting Limit	3.91				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID: SV107-23 NEA ID: AB02192
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.448	µg/g	5/7/98
Aroclor 1221	ND	0.448	µg/g	5/7/98
Aroclor 1232	ND	0.448	µg/g	5/7/98
Aroclor 1242	ND	0.448	µg/g	5/7/98
Aroclor 1248	ND	0.448	µg/g	5/7/98
Aroclor 1254	3.37	0.448	µg/g	5/7/98
Aroclor 1260	0.463	0.448	µg/g	5/7/98

Total PCB Amount > Reporting Limit 3.83

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-24	NEA ID:	AB02369		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/16/98
Aroclor 1221	ND	0.116	µg/g	5/16/98
Aroclor 1232	ND	0.116	µg/g	5/16/98
Aroclor 1242	ND	0.116	µg/g	5/16/98
Aroclor 1248	ND	0.116	µg/g	5/16/98
Aroclor 1254	2.02	0.116	µg/g	5/16/98
Aroclor 1260	0.663	0.116	µg/g	5/16/98

Total PCB Amount > Reporting Limit 2.68

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-25	NEA ID.	AB02370		
MATRIX :	FISH	DATE SAMPLED.	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/16/98
Aroclor 1221	ND	0.116	µg/g	5/16/98
Aroclor 1232	ND	0.116	µg/g	5/16/98
Aroclor 1242	ND	0.116	µg/g	5/16/98
Aroclor 1248	ND	0.116	µg/g	5/16/98
Aroclor 1254	0.823	0.116	µg/g	5/16/98
Aroclor 1260	0.292	0.116	µg/g	5/16/98

Total PCB Amount > Reporting Limit 1.12

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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CERTIFICATE OF ANALYSIS

5/19/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV107-26	NEA ID:	AB02350		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY.	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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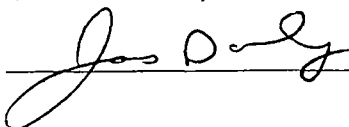
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/11/98
Aroclor 1221	ND	0.116	µg/g	5/11/98
Aroclor 1232	ND	0.116	µg/g	5/11/98
Aroclor 1242	ND	0.116	µg/g	5/11/98
Aroclor 1248	ND	0.116	µg/g	5/11/98
Aroclor 1254	1.03	0.116	µg/g	5/11/98
Aroclor 1260	0.485	0.116	µg/g	5/11/98

Total PCB Amount > Reporting Limit 1.51

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
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CERTIFICATE OF ANALYSIS

5/19/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV107-27 NEA ID AB02351
MATRIX: FISH DATE SAMPLED: 4/22/98 TIME: N/A
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT: 4517. SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.115	µg/g	5/14/98	
Aroclor 1221	ND	0.115	µg/g	5/14/98	
Aroclor 1232	ND	0.115	µg/g	5/14/98	
Aroclor 1242	ND	0.115	µg/g	5/14/98	
Aroclor 1248	ND	0.115	µg/g	5/14/98	
Aroclor 1254	1.31	0.115	µg/g	5/14/98	
Aroclor 1260	0.362	0.115	µg/g	5/14/98	
Total PCB Amount > Reporting Limit	1.67				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV-107-28	NEA ID.	AB02437		
MATRIX :	FISH	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME.	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

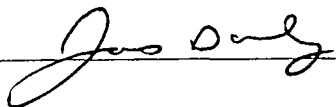
Aroclor 1016	ND	0.114	µg/g	5/16/98
Aroclor 1221	ND	0.114	µg/g	5/16/98
Aroclor 1232	ND	0.114	µg/g	5/16/98
Aroclor 1242	ND	0.114	µg/g	5/16/98
Aroclor 1248	ND	0.114	µg/g	5/16/98
Aroclor 1254	0.733	0.114	µg/g	5/16/98
Aroclor 1260	0.238	0.114	µg/g	5/16/98

Total PCB Amount > Reporting Limit 0.971

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV-107-29	NEA ID:	AB02438		
MATRIX :	FISH	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

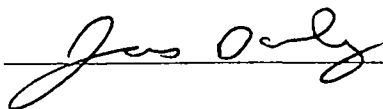
Aroclor 1016	ND	0.115	µg/g	5/16/98
Aroclor 1221	ND	0.115	µg/g	5/16/98
Aroclor 1232	ND	0.115	µg/g	5/16/98
Aroclor 1242	ND	0.115	µg/g	5/16/98
Aroclor 1248	ND	0.115	µg/g	5/16/98
Aroclor 1254	1.89	0.115	µg/g	5/16/98
Aroclor 1260	0.567	0.115	µg/g	5/16/98

Total PCB Amount > Reporting Limit 2.46

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-01	NEA ID:	AB02052		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.336	µg/g	4/29/98	
Aroclor 1221	ND	0.336	µg/g	4/29/98	
Aroclor 1232	ND	0.336	µg/g	4/29/98	
Aroclor 1242	ND	0.336	µg/g	4/29/98	
Aroclor 1248	ND	0.336	µg/g	4/29/98	
Aroclor 1254	3.77	0.336	µg/g	4/29/98	
Aroclor 1260	0.780	0.336	µg/g	4/29/98	
Total PCB Amount > Reporting Limit	4.55				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV106-02 NEA ID: AB02053
MATRIX: FISH DATE SAMPLED: 4/14/98 TIME: N/A
DATE RECEIVED: 4/16/98 TIME: 9 45 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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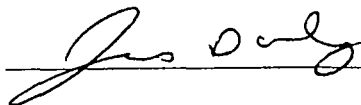
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	4/29/98	
Aroclor 1221	ND	0.336	µg/g	4/29/98	
Aroclor 1232	ND	0.336	µg/g	4/29/98	
Aroclor 1242	ND	0.336	µg/g	4/29/98	
Aroclor 1248	ND	0.336	µg/g	4/29/98	
Aroclor 1254	4.52	0.336	µg/g	4/29/98	
Aroclor 1260	0.754	0.336	µg/g	4/29/98	

Total PCB Amount > Reporting Limit 5.27

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-03	NEA ID:	AB02054		
MATRIX:	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	4/28/98
Aroclor 1221	ND	0.224	µg/g	4/28/98
Aroclor 1232	ND	0.224	µg/g	4/28/98
Aroclor 1242	ND	0.224	µg/g	4/28/98
Aroclor 1248	ND	0.224	µg/g	4/28/98
Aroclor 1254	3.50	0.224	µg/g	4/28/98
Aroclor 1260	0.629	0.224	µg/g	4/28/98

Total PCB Amount > Reporting Limit 4.13

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-04	NEA ID:	AB02055		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

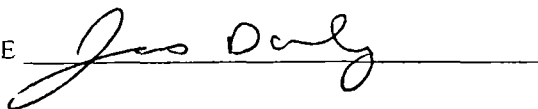
Aroclor 1016	ND	0.224	µg/g	4/29/98
Aroclor 1221	ND	0.224	µg/g	4/29/98
Aroclor 1232	ND	0.224	µg/g	4/29/98
Aroclor 1242	ND	0.224	µg/g	4/29/98
Aroclor 1248	ND	0.224	µg/g	4/29/98
Aroclor 1254	3.36	0.224	µg/g	4/29/98
Aroclor 1260	0.756	0.224	µg/g	4/29/98

Total PCB Amount > Reporting Limit 4.12

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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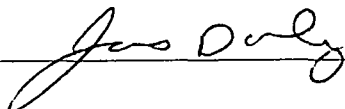
ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-05	NEA ID.	AB02056		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	4/28/98	
Aroclor 1221	ND	0.224	µg/g	4/28/98	
Aroclor 1232	ND	0.224	µg/g	4/28/98	
Aroclor 1242	ND	0.224	µg/g	4/28/98	
Aroclor 1248	ND	0.224	µg/g	4/28/98	
Aroclor 1254	3.95	0.224	µg/g	4/28/98	
Aroclor 1260	0.639	0.224	µg/g	4/28/98	
Total PCB Amount > Reporting Limit	4.59				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID.	SV106-06	NEA ID:	AB02057		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	4/29/98
Aroclor 1221	ND	0.336	µg/g	4/29/98
Aroclor 1232	ND	0.336	µg/g	4/29/98
Aroclor 1242	ND	0.336	µg/g	4/29/98
Aroclor 1248	ND	0.336	µg/g	4/29/98
Aroclor 1254	3.15	0.336	µg/g	4/29/98
Aroclor 1260	1.39	0.336	µg/g	4/29/98

Total PCB Amount > Reporting Limit 4.54

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV106-07 NEA ID: AB02058
MATRIX: FISH DATE SAMPLED: 4/14/98 TIME: N/A
DATE RECEIVED: 4/16/98 TIME: 9 45 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	4/29/98
Aroclor 1221	ND	0.224	µg/g	4/29/98
Aroclor 1232	ND	0.224	µg/g	4/29/98
Aroclor 1242	ND	0.224	µg/g	4/29/98
Aroclor 1248	ND	0.224	µg/g	4/29/98
Aroclor 1254	1.95	0.224	µg/g	4/29/98
Aroclor 1260	0.301	0.224	µg/g	4/29/98

Total PCB Amount > Reporting Limit 2.25

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

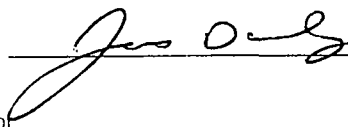
CUSTOMER ID:	SV106-08	NEA ID:	AB02059		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0 224	µg/g	4/29/98	
Aroclor 1221	ND	0 224	µg/g	4/29/98	
Aroclor 1232	ND	0 224	µg/g	4/29/98	
Aroclor 1242	ND	0 224	µg/g	4/29/98	
Aroclor 1248	ND	0 224	µg/g	4/29/98	
Aroclor 1254	2 98	0 224	µg/g	4/29/98	
Aroclor 1260	0 702	0 224	µg/g	4/29/98	
Total PCB Amount > Reporting Limit	3 68				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-09	NEA ID:	AB02060		
MATRIX:	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/8/98
Aroclor 1221	ND	0.224	µg/g	5/8/98
Aroclor 1232	ND	0.224	µg/g	5/8/98
Aroclor 1242	ND	0.224	µg/g	5/8/98
Aroclor 1248	ND	0.224	µg/g	5/8/98
Aroclor 1254	3.17	0.224	µg/g	5/8/98
Aroclor 1260	0.646	0.224	µg/g	5/8/98

Total PCB Amount > Reporting Limit 3.82

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-09D	NEA ID:	AB02428		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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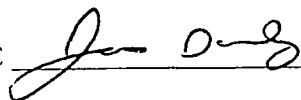
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 224	µg/g	5/8/98
Aroclor 1221	ND	0 224	µg/g	5/8/98
Aroclor 1232	ND	0 224	µg/g	5/8/98
Aroclor 1242	ND	0 224	µg/g	5/8/98
Aroclor 1248	ND	0 224	µg/g	5/8/98
Aroclor 1254	3 88	0 224	µg/g	5/8/98
Aroclor 1260	0 752	0 224	µg/g	5/8/98

Total PCB Amount > Reporting Limit 4 63

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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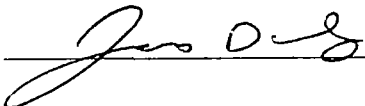
ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-10	NEA ID:	AB02061		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	4/29/98	
Aroclor 1221	ND	0.224	µg/g	4/29/98	
Aroclor 1232	ND	0.224	µg/g	4/29/98	
Aroclor 1242	ND	0.224	µg/g	4/29/98	
Aroclor 1248	ND	0.224	µg/g	4/29/98	
Aroclor 1254	3.17	0.224	µg/g	4/29/98	
Aroclor 1260	1.41	0.224	µg/g	4/29/98	
Total PCB Amount > Reporting Limit	4.58				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



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Robert E. Wagner, Laboratory Director

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-11	NEA ID:	AB02062		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	4/30/98
Aroclor 1221	ND	0.224	µg/g	4/30/98
Aroclor 1232	ND	0.224	µg/g	4/30/98
Aroclor 1242	ND	0.224	µg/g	4/30/98
Aroclor 1248	ND	0.224	µg/g	4/30/98
Aroclor 1254	2.56	0.224	µg/g	4/30/98
Aroclor 1260	0.451	0.224	µg/g	4/30/98

Total PCB Amount > Reporting Limit 3.01

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-12	NEA ID:	AB02063		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	4/30/98
Aroclor 1221	ND	0.336	µg/g	4/30/98
Aroclor 1232	ND	0.336	µg/g	4/30/98
Aroclor 1242	ND	0.336	µg/g	4/30/98
Aroclor 1248	ND	0.336	µg/g	4/30/98
Aroclor 1254	3.66	0.336	µg/g	4/30/98
Aroclor 1260	0.643	0.336	µg/g	4/30/98

Total PCB Amount > Reporting Limit 4.3

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-13	NEA ID:	AB02064		
MATRIX :	FISH	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	4/30/98	
Aroclor 1221	ND	0.112	µg/g	4/30/98	
Aroclor 1232	ND	0.112	µg/g	4/30/98	
Aroclor 1242	ND	0.112	µg/g	4/30/98	
Aroclor 1248	ND	0.112	µg/g	4/30/98	
Aroclor 1254	0.658	0.112	µg/g	4/30/98	
Aroclor 1260	ND	0.112	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	0.658				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-14	NEA ID:	AB02127		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	4/30/98	
Aroclor 1221	ND	0.112	µg/g	4/30/98	
Aroclor 1232	ND	0.112	µg/g	4/30/98	
Aroclor 1242	ND	0.112	µg/g	4/30/98	
Aroclor 1248	ND	0.112	µg/g	4/30/98	
Aroclor 1254	1.04	0.112	µg/g	4/30/98	
Aroclor 1260	0.153	0.112	µg/g	4/30/98	
Total PCB Amount > Reporting Limit	1.19				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID.	SV106-16	NEA ID.	AB02183		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	1.13	0.112	µg/g	5/5/98
Aroclor 1260	0.211	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 1.34

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-17	NEA ID.	AB02184		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME.	11 00	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	1.22	0.112	µg/g	5/5/98
Aroclor 1260	0.251	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 1.47

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-18	NEA ID	AB02185		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.784	µg/g	5/5/98
Aroclor 1221	ND	0.784	µg/g	5/5/98
Aroclor 1232	ND	0.784	µg/g	5/5/98
Aroclor 1242	ND	0.784	µg/g	5/5/98
Aroclor 1248	ND	0.784	µg/g	5/5/98
Aroclor 1254	8.78	0.784	µg/g	5/5/98
Aroclor 1260	1.56	0.784	µg/g	5/5/98

Total PCB Amount > Reporting Limit 10.3

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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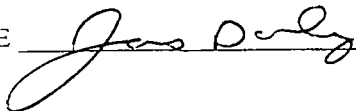
ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-19	NEA ID:	AB02186		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/5/98	
Aroclor 1221	ND	0.112	µg/g	5/5/98	
Aroclor 1232	ND	0.112	µg/g	5/5/98	
Aroclor 1242	ND	0.112	µg/g	5/5/98	
Aroclor 1248	ND	0.112	µg/g	5/5/98	
Aroclor 1254	0.854	0.112	µg/g	5/5/98	
Aroclor 1260	0.242	0.112	µg/g	5/5/98	
Total PCB Amount > Reporting Limit	1.1				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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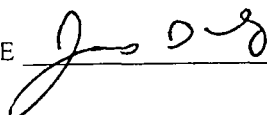
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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-20	NEA ID.	AB02352		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.231	µg/g	5/16/98	
Aroclor 1221	ND	0.231	µg/g	5/16/98	
Aroclor 1232	ND	0.231	µg/g	5/16/98	
Aroclor 1242	ND	0.231	µg/g	5/16/98	
Aroclor 1248	ND	0.231	µg/g	5/16/98	
Aroclor 1254	2.63	0.231	µg/g	5/16/98	
Aroclor 1260	0.611	0.231	µg/g	5/16/98	
Total PCB Amount > Reporting Limit	3.24				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV106-21 NEA ID: AB02353
MATRIX : FISH DATE SAMPLED: 4/22/98 TIME: N/A
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.117	µg/g	5/15/98	
Aroclor 1221	ND	0.117	µg/g	5/15/98	
Aroclor 1232	ND	0.117	µg/g	5/15/98	
Aroclor 1242	ND	0.117	µg/g	5/15/98	
Aroclor 1248	ND	0.117	µg/g	5/15/98	
Aroclor 1254	1.93	0.117	µg/g	5/15/98	
Aroclor 1260	0.605	0.117	µg/g	5/15/98	
Total PCB Amount > Reporting Limit	2.54				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-22	NEA ID:	AB02354		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.574	µg/g	5/16/98	
Aroclor 1221	ND	0.574	µg/g	5/16/98	
Aroclor 1232	ND	0.574	µg/g	5/16/98	
Aroclor 1242	ND	0.574	µg/g	5/16/98	
Aroclor 1248	ND	0.574	µg/g	5/16/98	
Aroclor 1254	6.11	0.574	µg/g	5/16/98	
Aroclor 1260	0.950	0.574	µg/g	5/16/98	
Total PCB Amount > Reporting Limit	7.06				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-23	NEA ID:	AB02355		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.231	µg/g	5/16/98	
Aroclor 1221	ND	0.231	µg/g	5/16/98	
Aroclor 1232	ND	0.231	µg/g	5/16/98	
Aroclor 1242	ND	0.231	µg/g	5/16/98	
Aroclor 1248	ND	0.231	µg/g	5/16/98	
Aroclor 1254	2.65	0.231	µg/g	5/16/98	
Aroclor 1260	0.437	0.231	µg/g	5/16/98	
Total PCB Amount > Reporting Limit	3.09				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV-106-24 NEA ID: AB02440
MATRIX : FISH DATE SAMPLED: 4/23/98 TIME: N/A
DATE RECEIVED: 4/30/98 TIME: 10 30 PROJECT: 4517. SCHLUM-I
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/16/98
Aroclor 1221	ND	0.117	µg/g	5/16/98
Aroclor 1232	ND	0.117	µg/g	5/16/98
Aroclor 1242	ND	0.117	µg/g	5/16/98
Aroclor 1248	ND	0.117	µg/g	5/16/98
Aroclor 1254	0.853	0.117	µg/g	5/16/98
Aroclor 1260	0.245	0.117	µg/g	5/16/98

Total PCB Amount > Reporting Limit 1.1

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV-106-25	NEA ID:	AB02441		
MATRIX :	FISH	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME:	10 30	PROJECT:	4517, SCHLUM-1
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.116	µg/g	5/16/98	
Aroclor 1221	ND	0.116	µg/g	5/16/98	
Aroclor 1232	ND	0.116	µg/g	5/16/98	
Aroclor 1242	ND	0.116	µg/g	5/16/98	
Aroclor 1248	ND	0.116	µg/g	5/16/98	
Aroclor 1254	1.19	0.116	µg/g	5/16/98	
Aroclor 1260	0.310	0.116	µg/g	5/16/98	
Total PCB Amount > Reporting Limit	1.5				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-01 NEA ID: AB02132
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/1/98	
Aroclor 1221	ND	0.112	µg/g	5/1/98	
Aroclor 1232	ND	0.112	µg/g	5/1/98	
Aroclor 1242	ND	0.112	µg/g	5/1/98	
Aroclor 1248	ND	0.112	µg/g	5/1/98	
Aroclor 1254	0.916	0.112	µg/g	5/1/98	
Aroclor 1260	0.114	0.112	µg/g	5/1/98	
Total PCB Amount > Reporting Limit	1.03				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-02 NEA ID: AB02133
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0 224	µg/g	5/1/98	
Aroclor 1221	ND	0 224	µg/g	5/1/98	
Aroclor 1232	ND	0 224	µg/g	5/1/98	
Aroclor 1242	ND	0 224	µg/g	5/1/98	
Aroclor 1248	ND	0 224	µg/g	5/1/98	
Aroclor 1254	2 13	0 224	µg/g	5/1/98	
Aroclor 1260	0 265	0 224	µg/g	5/1/98	
Total PCB Amount > Reporting Limit	2 4				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-03 NEA ID: AB02134
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

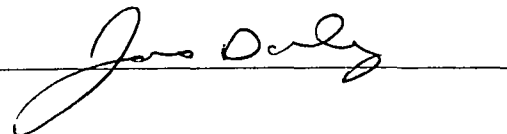
PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/1/98	
Aroclor 1221	ND	0.112	µg/g	5/1/98	
Aroclor 1232	ND	0.112	µg/g	5/1/98	
Aroclor 1242	ND	0.112	µg/g	5/1/98	
Aroclor 1248	ND	0.112	µg/g	5/1/98	
Aroclor 1254	1.47	0.112	µg/g	5/1/98	
Aroclor 1260	0.171	0.112	µg/g	5/1/98	
Total PCB Amount > Reporting Limit	1.64				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-04	NEA ID:	AB02135		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/1/98
Aroclor 1221	ND	0.224	µg/g	5/1/98
Aroclor 1232	ND	0.224	µg/g	5/1/98
Aroclor 1242	ND	0.224	µg/g	5/1/98
Aroclor 1248	ND	0.224	µg/g	5/1/98
Aroclor 1254	1.65	0.224	µg/g	5/1/98
Aroclor 1260	0.254	0.224	µg/g	5/1/98

Total PCB Amount > Reporting Limit 1.9

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-05	NEA ID:	AB02136	
MATRIX .	FISH	DATE SAMPLED.	4/15/98	TIME: N/A
DATE RECEIVED:	4/18/98	TIME: 11 00	PROJECT	SCHLUM
SAMPLED BY:	N/A	LOCATION.	N/A	
CUSTOMER PO:	N/A	LAB ELAP #:	11078	

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/1/98
Aroclor 1221	ND	0.112	µg/g	5/1/98
Aroclor 1232	ND	0.112	µg/g	5/1/98
Aroclor 1242	ND	0.112	µg/g	5/1/98
Aroclor 1248	ND	0.112	µg/g	5/1/98
Aroclor 1254	1.10	0.112	µg/g	5/1/98
Aroclor 1260	0.135	0.112	µg/g	5/1/98

Total PCB Amount > Reporting Limit 1.24

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-06	NEA ID:	AB02137		
MATRIX:	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	5/1/98
Aroclor 1221	ND	0.336	µg/g	5/1/98
Aroclor 1232	ND	0.336	µg/g	5/1/98
Aroclor 1242	ND	0.336	µg/g	5/1/98
Aroclor 1248	ND	0.336	µg/g	5/1/98
Aroclor 1254	2.51	0.336	µg/g	5/1/98
Aroclor 1260	0.677	0.336	µg/g	5/1/98

Total PCB Amount > Reporting Limit 3.19

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-07	NEA ID:	AB02138		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.336	µg/g	5/4/98	
Aroclor 1221	ND	0.336	µg/g	5/4/98	
Aroclor 1232	ND	0.336	µg/g	5/4/98	
Aroclor 1242	ND	0.336	µg/g	5/4/98	
Aroclor 1248	ND	0.336	µg/g	5/4/98	
Aroclor 1254	3.14	0.336	µg/g	5/4/98	
Aroclor 1260	0.876	0.336	µg/g	5/4/98	
Total PCB Amount > Reporting Limit	4.02				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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BRENTWOOD, TN 37027
CONTACT: JIM ORR

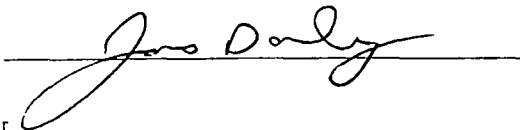
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MATRIX :	FISH	DATE SAMPLED	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/1/98	
Aroclor 1221	ND	0.112	µg/g	5/1/98	
Aroclor 1232	ND	0.112	µg/g	5/1/98	
Aroclor 1242	ND	0.112	µg/g	5/1/98	
Aroclor 1248	ND	0.112	µg/g	5/1/98	
Aroclor 1254	0.894	0.112	µg/g	5/1/98	
Aroclor 1260	0.373	0.112	µg/g	5/1/98	
Total PCB Amount > Reporting Limit	1.27				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID.	SV532-09	NEA ID:	AB02348		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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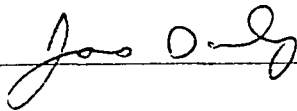
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 117	µg/g	5/10/98
Aroclor 1221	ND	0 117	µg/g	5/10/98
Aroclor 1232	ND	0 117	µg/g	5/10/98
Aroclor 1242	ND	0 117	µg/g	5/10/98
Aroclor 1248	ND	0 117	µg/g	5/10/98
Aroclor 1254	0 612	0 117	µg/g	5/10/98
Aroclor 1260	0 194	0 117	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0 806

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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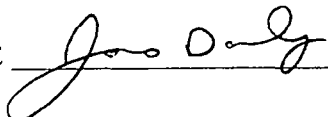
ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-10	NEA ID:	AB02349		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT	4517, SCHLUM
SAMPLED BY.	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.117	µg/g	5/11/98	
Aroclor 1221	ND	0.117	µg/g	5/11/98	
Aroclor 1232	ND	0.117	µg/g	5/11/98	
Aroclor 1242	ND	0.117	µg/g	5/11/98	
Aroclor 1248	ND	0.117	µg/g	5/11/98	
Aroclor 1254	0.776	0.117	µg/g	5/11/98	
Aroclor 1260	0.364	0.117	µg/g	5/11/98	
Total PCB Amount > Reporting Limit	1.14				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

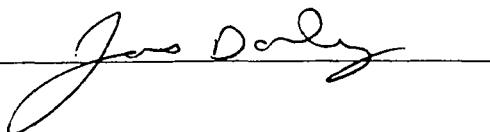
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MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	5/4/98	
Aroclor 1221	ND	0.224	µg/g	5/4/98	
Aroclor 1232	ND	0.224	µg/g	5/4/98	
Aroclor 1242	ND	0.224	µg/g	5/4/98	
Aroclor 1248	ND	0.224	µg/g	5/4/98	
Aroclor 1254	3.01	0.224	µg/g	5/4/98	
Aroclor 1260	0.756	0.224	µg/g	5/4/98	
Total PCB Amount > Reporting Limit	3.77				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-11D NEA ID: AB02431
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/4/98
Aroclor 1221	ND	0.224	µg/g	5/4/98
Aroclor 1232	ND	0.224	µg/g	5/4/98
Aroclor 1242	ND	0.224	µg/g	5/4/98
Aroclor 1248	ND	0.224	µg/g	5/4/98
Aroclor 1254	2.86	0.224	µg/g	5/4/98
Aroclor 1260	0.690	0.224	µg/g	5/4/98

Total PCB Amount > Reporting Limit 3.55

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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BRENTWOOD, TN 37027
CONTACT: JIM ORR

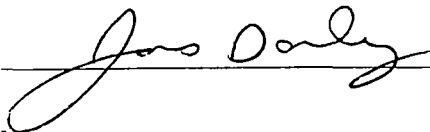
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MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/2/98	
Aroclor 1221	ND	0.112	µg/g	5/2/98	
Aroclor 1232	ND	0.112	µg/g	5/2/98	
Aroclor 1242	ND	0.112	µg/g	5/2/98	
Aroclor 1248	ND	0.112	µg/g	5/2/98	
Aroclor 1254	1.10	0.112	µg/g	5/2/98	
Aroclor 1260	0.664	0.112	µg/g	5/2/98	
Total PCB Amount > Reporting Limit	1.76				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-13	NEA ID:	AB02144		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 224	µg/g	5/2/98
Aroclor 1221	ND	0 224	µg/g	5/2/98
Aroclor 1232	ND	0 224	µg/g	5/2/98
Aroclor 1242	ND	0 224	µg/g	5/2/98
Aroclor 1248	ND	0 224	µg/g	5/2/98
Aroclor 1254	3 21	0 224	µg/g	5/2/98
Aroclor 1260	0 657	0 224	µg/g	5/2/98

Total PCB Amount > Reporting Limit 3 87

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-14 NEA ID: AB02145
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	5/4/98
Aroclor 1221	ND	0.336	µg/g	5/4/98
Aroclor 1232	ND	0.336	µg/g	5/4/98
Aroclor 1242	ND	0.336	µg/g	5/4/98
Aroclor 1248	ND	0.336	µg/g	5/4/98
Aroclor 1254	3.10	0.336	µg/g	5/4/98
Aroclor 1260	0.645	0.336	µg/g	5/4/98

Total PCB Amount > Reporting Limit 3.75

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-15 NEA ID: AB02146
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP # 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/2/98	
Aroclor 1221	ND	0.112	µg/g	5/2/98	
Aroclor 1232	ND	0.112	µg/g	5/2/98	
Aroclor 1242	ND	0.112	µg/g	5/2/98	
Aroclor 1248	ND	0.112	µg/g	5/2/98	
Aroclor 1254	1.72	0.112	µg/g	5/2/98	
Aroclor 1260	0.444	0.112	µg/g	5/2/98	
Total PCB Amount > Reporting Limit	2.16				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-16	NEA ID:	AB02147		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/4/98
Aroclor 1221	ND	0.224	µg/g	5/4/98
Aroclor 1232	ND	0.224	µg/g	5/4/98
Aroclor 1242	ND	0.224	µg/g	5/4/98
Aroclor 1248	ND	0.224	µg/g	5/4/98
Aroclor 1254	2.77	0.224	µg/g	5/4/98
Aroclor 1260	0.775	0.224	µg/g	5/4/98

Total PCB Amount > Reporting Limit 3.54

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV532-17 NEA ID: AB02148
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP # 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	5/4/98	
Aroclor 1221	ND	0.224	µg/g	5/4/98	
Aroclor 1232	ND	0.224	µg/g	5/4/98	
Aroclor 1242	ND	0.224	µg/g	5/4/98	
Aroclor 1248	ND	0.224	µg/g	5/4/98	
Aroclor 1254	2.72	0.224	µg/g	5/4/98	
Aroclor 1260	0.551	0.224	µg/g	5/4/98	
Total PCB Amount > Reporting Limit	3.27				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-18	NEA ID:	AB02151		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/2/98
Aroclor 1221	ND	0.224	µg/g	5/2/98
Aroclor 1232	ND	0.224	µg/g	5/2/98
Aroclor 1242	ND	0.224	µg/g	5/2/98
Aroclor 1248	ND	0.224	µg/g	5/2/98
Aroclor 1254	0.897	0.224	µg/g	5/2/98
Aroclor 1260	0.347	0.224	µg/g	5/2/98

Total PCB Amount > Reporting Limit 1.24

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-19	NEA ID:	AB02152		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/2/98
Aroclor 1221	ND	0.112	µg/g	5/2/98
Aroclor 1232	ND	0.112	µg/g	5/2/98
Aroclor 1242	ND	0.112	µg/g	5/2/98
Aroclor 1248	ND	0.112	µg/g	5/2/98
Aroclor 1254	0.538	0.112	µg/g	5/2/98
Aroclor 1260	0.190	0.112	µg/g	5/2/98

Total PCB Amount > Reporting Limit 0.728

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

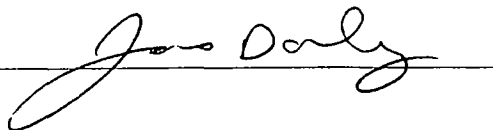
CUSTOMER ID:	SV532-20	NEA ID:	AB02153		
MATRIX .	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME.	11 00	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.115	µg/g	5/7/98	
Aroclor 1221	ND	0.115	µg/g	5/7/98	
Aroclor 1232	ND	0.115	µg/g	5/7/98	
Aroclor 1242	ND	0.115	µg/g	5/7/98	
Aroclor 1248	ND	0.115	µg/g	5/7/98	
Aroclor 1254	1.78	0.115	µg/g	5/7/98	
Aroclor 1260	0.305	0.115	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	2.09				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-21	NEA ID:	AB02154		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/7/98	
Aroclor 1221	ND	0.112	µg/g	5/7/98	
Aroclor 1232	ND	0.112	µg/g	5/7/98	
Aroclor 1242	ND	0.112	µg/g	5/7/98	
Aroclor 1248	ND	0.112	µg/g	5/7/98	
Aroclor 1254	0.568	0.112	µg/g	5/7/98	
Aroclor 1260	0.129	0.112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	0.697				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-22	NEA ID	AB02365		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO.	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 118	µg/g	5/15/98
Aroclor 1221	ND	0 118	µg/g	5/15/98
Aroclor 1232	ND	0 118	µg/g	5/15/98
Aroclor 1242	ND	0 118	µg/g	5/15/98
Aroclor 1248	ND	0 118	µg/g	5/15/98
Aroclor 1254	0 526	0 118	µg/g	5/15/98
Aroclor 1260	0 134	0 118	µg/g	5/15/98

Total PCB Amount > Reporting Limit 0 66

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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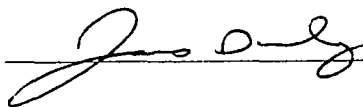
ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-23	NEA ID	AB02366		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.114	µg/g	5/15/98	
Aroclor 1221	ND	0.114	µg/g	5/15/98	
Aroclor 1232	ND	0.114	µg/g	5/15/98	
Aroclor 1242	ND	0.114	µg/g	5/15/98	
Aroclor 1248	ND	0.114	µg/g	5/15/98	
Aroclor 1254	0.855	0.114	µg/g	5/15/98	
Aroclor 1260	0.197	0.114	µg/g	5/15/98	
Total PCB Amount > Reporting Limit	1.05				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV532-24	NEA ID:	AB02193		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/7/98	
Aroclor 1221	ND	0.112	µg/g	5/7/98	
Aroclor 1232	ND	0.112	µg/g	5/7/98	
Aroclor 1242	ND	0.112	µg/g	5/7/98	
Aroclor 1248	ND	0.112	µg/g	5/7/98	
Aroclor 1254	0.552	0.112	µg/g	5/7/98	
Aroclor 1260	0.129	0.112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	0.681				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner Laboratory Director

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

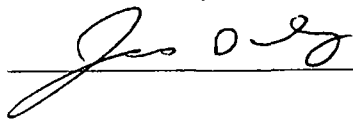
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MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.578	µg/g	5/18/98	
Aroclor 1221	ND	0.578	µg/g	5/18/98	
Aroclor 1232	ND	0.578	µg/g	5/18/98	
Aroclor 1242	ND	0.578	µg/g	5/18/98	
Aroclor 1248	ND	0.578	µg/g	5/18/98	
Aroclor 1254	6.66	0.578	µg/g	5/18/98	
Aroclor 1260	1.58	0.578	µg/g	5/18/98	
Total PCB Amount > Reporting Limit	8.24				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT. JIM ORR

CUSTOMER ID:	SV532-26	NEA ID:	AB02368		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.341	µg/g	5/18/98	
Aroclor 1221	ND	0.341	µg/g	5/18/98	
Aroclor 1232	ND	0.341	µg/g	5/18/98	
Aroclor 1242	ND	0.341	µg/g	5/18/98	
Aroclor 1248	ND	0.341	µg/g	5/18/98	
Aroclor 1254	3.58	0.341	µg/g	5/18/98	
Aroclor 1260	1.11	0.341	µg/g	5/18/98	
Total PCB Amount > Reporting Limit	4.69				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV-532-27	NEA ID:	AB02439		
MATRIX :	FISH	DATE SAMPLED:	4/23/98	TIME:	N/A
DATE RECEIVED:	4/30/98	TIME.	10 30	PROJECT.	4517, SCHLUM-I
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/16/98
Aroclor 1221	ND	0.116	µg/g	5/16/98
Aroclor 1232	ND	0.116	µg/g	5/16/98
Aroclor 1242	ND	0.116	µg/g	5/16/98
Aroclor 1248	ND	0.116	µg/g	5/16/98
Aroclor 1254	1.26	0.116	µg/g	5/16/98
Aroclor 1260	0.691	0.116	µg/g	5/16/98

Total PCB Amount > Reporting Limit 1.95

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-01	NEA ID:	AB02157		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.224	µg/g	5/2/98	
Aroclor 1221	ND	0.224	µg/g	5/2/98	
Aroclor 1232	ND	0.224	µg/g	5/2/98	
Aroclor 1242	ND	0.224	µg/g	5/2/98	
Aroclor 1248	ND	0.224	µg/g	5/2/98	
Aroclor 1254	0.987	0.224	µg/g	5/2/98	
Aroclor 1260	0.340	0.224	µg/g	5/2/98	
Total PCB Amount > Reporting Limit	1.33				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305

(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS

5/8/98

ERM- SOUTHEAST, INC.

7106 CROSSROADS BLVD.

SUITE 228

BRENTWOOD, TN 37027

CONTACT: JIM ORR

CUSTOMER ID: SV535-01D NEA ID: AB02433
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 224	µg/g	5/1/98	
Aroclor 1221	ND	0 224	µg/g	5/1/98	
Aroclor 1232	ND	0 224	µg/g	5/1/98	
Aroclor 1242	ND	0 224	µg/g	5/1/98	
Aroclor 1248	ND	0 224	µg/g	5/1/98	
Aroclor 1254	0 927	0 224	µg/g	5/1/98	
Aroclor 1260	0 317	0 224	µg/g	5/1/98	

Total PCB Amount > Reporting Limit 1 24

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc

Robert E Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-02 NEA ID: AB02158
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/2/98	
Aroclor 1221	ND	0.112	µg/g	5/2/98	
Aroclor 1232	ND	0.112	µg/g	5/2/98	
Aroclor 1242	ND	0.112	µg/g	5/2/98	
Aroclor 1248	ND	0.112	µg/g	5/2/98	
Aroclor 1254	0.223	0.112	µg/g	5/2/98	
Aroclor 1260	0.126	0.112	µg/g	5/2/98	
Total PCB Amount > Reporting Limit	0.349				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-03 NEA ID: AB02159
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/2/98	
Aroclor 1221	ND	0.112	µg/g	5/2/98	
Aroclor 1232	ND	0.112	µg/g	5/2/98	
Aroclor 1242	ND	0.112	µg/g	5/2/98	
Aroclor 1248	ND	0.112	µg/g	5/2/98	
Aroclor 1254	0.656	0.112	µg/g	5/2/98	
Aroclor 1260	0.186	0.112	µg/g	5/2/98	
Total PCB Amount > Reporting Limit	0.842				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-04	NEA ID.	AB02160		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/2/98
Aroclor 1221	ND	0.112	µg/g	5/2/98
Aroclor 1232	ND	0.112	µg/g	5/2/98
Aroclor 1242	ND	0.112	µg/g	5/2/98
Aroclor 1248	ND	0.112	µg/g	5/2/98
Aroclor 1254	1.29	0.112	µg/g	5/2/98
Aroclor 1260	0.363	0.112	µg/g	5/2/98

Total PCB Amount > Reporting Limit 1.65

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-05 NEA ID: AB02161
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/2/98
Aroclor 1221	ND	0.112	µg/g	5/2/98
Aroclor 1232	ND	0.112	µg/g	5/2/98
Aroclor 1242	ND	0.112	µg/g	5/2/98
Aroclor 1248	ND	0.112	µg/g	5/2/98
Aroclor 1254	0.774	0.112	µg/g	5/2/98
Aroclor 1260	0.262	0.112	µg/g	5/2/98

Total PCB Amount > Reporting Limit 1.04

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-06 NEA ID: AB02162
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/2/98
Aroclor 1221	ND	0.112	µg/g	5/2/98
Aroclor 1232	ND	0.112	µg/g	5/2/98
Aroclor 1242	ND	0.112	µg/g	5/2/98
Aroclor 1248	ND	0.112	µg/g	5/2/98
Aroclor 1254	0.618	0.112	µg/g	5/2/98
Aroclor 1260	0.231	0.112	µg/g	5/2/98

Total PCB Amount > Reporting Limit 0.849

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-07 NEA ID: AB02163
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 112	µg/g	5/2/98	
Aroclor 1221	ND	0 112	µg/g	5/2/98	
Aroclor 1232	ND	0 112	µg/g	5/2/98	
Aroclor 1242	ND	0 112	µg/g	5/2/98	
Aroclor 1248	ND	0 112	µg/g	5/2/98	
Aroclor 1254	0 348	0 112	µg/g	5/2/98	
Aroclor 1260	0 130	0 112	µg/g	5/2/98	

Total PCB Amount > Reporting Limit 0 478

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-08 NEA ID: AB02164
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0 112	µg/g	5/3/98
Aroclor 1221	ND	0 112	µg/g	5/3/98
Aroclor 1232	ND	0 112	µg/g	5/3/98
Aroclor 1242	ND	0 112	µg/g	5/3/98
Aroclor 1248	ND	0 112	µg/g	5/3/98
Aroclor 1254	0 251	0 112	µg/g	5/3/98
Aroclor 1260	ND	0 112	µg/g	5/3/98

Total PCB Amount > Reporting Limit 0 251

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analytic concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc

Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-09	NEA ID	AB02165		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0 112	µg/g	5/7/98	
Aroclor 1221	ND	0 112	µg/g	5/7/98	
Aroclor 1232	ND	0 112	µg/g	5/7/98	
Aroclor 1242	ND	0 112	µg/g	5/7/98	
Aroclor 1248	ND	0 112	µg/g	5/7/98	
Aroclor 1254	0 221	0 112	µg/g	5/7/98	
Aroclor 1260	ND	0 112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	0 221				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E Wagner, Laboratory Director

NORTHEAST ANALYTICAL

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301 Nott Street, Schenectady, NY 12305
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-10 NEA ID: AB02166
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/7/98	
Aroclor 1221	ND	0.112	µg/g	5/7/98	
Aroclor 1232	ND	0.112	µg/g	5/7/98	
Aroclor 1242	ND	0.112	µg/g	5/7/98	
Aroclor 1248	ND	0.112	µg/g	5/7/98	
Aroclor 1254	0.380	0.112	µg/g	5/7/98	
Aroclor 1260	0.181	0.112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	0.561				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-11	NEA ID:	AB02167		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/3/98
Aroclor 1221	ND	0.112	µg/g	5/3/98
Aroclor 1232	ND	0.112	µg/g	5/3/98
Aroclor 1242	ND	0.112	µg/g	5/3/98
Aroclor 1248	ND	0.112	µg/g	5/3/98
Aroclor 1254	1.54	0.112	µg/g	5/3/98
Aroclor 1260	0.557	0.112	µg/g	5/3/98

Total PCB Amount > Reporting Limit 2.1

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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301 Nott Street, Schenectady, NY 12305
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-12	NEA ID:	AB02168		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/3/98
Aroclor 1221	ND	0.112	µg/g	5/3/98
Aroclor 1232	ND	0.112	µg/g	5/3/98
Aroclor 1242	ND	0.112	µg/g	5/3/98
Aroclor 1248	ND	0.112	µg/g	5/3/98
Aroclor 1254	0.927	0.112	µg/g	5/3/98
Aroclor 1260	0.446	0.112	µg/g	5/3/98

Total PCB Amount > Reporting Limit 1.37

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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5/8/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-13 NEA ID: AB02169
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/3/98	
Aroclor 1221	ND	0.112	µg/g	5/3/98	
Aroclor 1232	ND	0.112	µg/g	5/3/98	
Aroclor 1242	ND	0.112	µg/g	5/3/98	
Aroclor 1248	ND	0.112	µg/g	5/3/98	
Aroclor 1254	0.896	0.112	µg/g	5/3/98	
Aroclor 1260	0.367	0.112	µg/g	5/3/98	
Total PCB Amount > Reporting Limit	1.26				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-14	NEA ID:	AB02170		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.336	µg/g	5/3/98	
Aroclor 1221	ND	0.336	µg/g	5/3/98	
Aroclor 1232	ND	0.336	µg/g	5/3/98	
Aroclor 1242	ND	0.336	µg/g	5/3/98	
Aroclor 1248	ND	0.336	µg/g	5/3/98	
Aroclor 1254	3.96	0.336	µg/g	5/3/98	
Aroclor 1260	0.708	0.336	µg/g	5/3/98	
Total PCB Amount > Reporting Limit	4.67				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-16 NEA ID: AB02172
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/3/98	
Aroclor 1221	ND	0.112	µg/g	5/3/98	
Aroclor 1232	ND	0.112	µg/g	5/3/98	
Aroclor 1242	ND	0.112	µg/g	5/3/98	
Aroclor 1248	ND	0.112	µg/g	5/3/98	
Aroclor 1254	0.595	0.112	µg/g	5/3/98	
Aroclor 1260	0.193	0.112	µg/g	5/3/98	

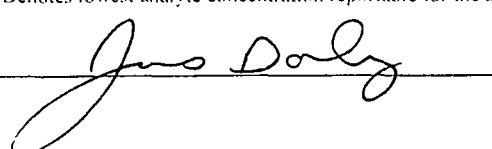
Total PCB Amount > Reporting Limit 0.788

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director



NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

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5/8/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-17	NEA ID.	AB02173		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME.	11 00	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/3/98
Aroclor 1221	ND	0.112	µg/g	5/3/98
Aroclor 1232	ND	0.112	µg/g	5/3/98
Aroclor 1242	ND	0.112	µg/g	5/3/98
Aroclor 1248	ND	0.112	µg/g	5/3/98
Aroclor 1254	0.391	0.112	µg/g	5/3/98
Aroclor 1260	0.132	0.112	µg/g	5/3/98

Total PCB Amount > Reporting Limit 0.523

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-18	NEA ID	AB02196		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/7/98	
Aroclor 1221	ND	0.112	µg/g	5/7/98	
Aroclor 1232	ND	0.112	µg/g	5/7/98	
Aroclor 1242	ND	0.112	µg/g	5/7/98	
Aroclor 1248	ND	0.112	µg/g	5/7/98	
Aroclor 1254	1.47	0.112	µg/g	5/7/98	
Aroclor 1260	0.486	0.112	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	1.96				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-19	NEA ID:	AB02197		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/7/98
Aroclor 1221	ND	0.112	µg/g	5/7/98
Aroclor 1232	ND	0.112	µg/g	5/7/98
Aroclor 1242	ND	0.112	µg/g	5/7/98
Aroclor 1248	ND	0.112	µg/g	5/7/98
Aroclor 1254	1.52	0.112	µg/g	5/7/98
Aroclor 1260	0.624	0.112	µg/g	5/7/98

Total PCB Amount > Reporting Limit 2.14

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-20	NEA ID:	AB02198		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.448	µg/g	5/7/98	
Aroclor 1221	ND	0.448	µg/g	5/7/98	
Aroclor 1232	ND	0.448	µg/g	5/7/98	
Aroclor 1242	ND	0.448	µg/g	5/7/98	
Aroclor 1248	ND	0.448	µg/g	5/7/98	
Aroclor 1254	4.30	0.448	µg/g	5/7/98	
Aroclor 1260	0.989	0.448	µg/g	5/7/98	
Total PCB Amount > Reporting Limit	5.29				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV535-21 NEA ID: AB02199
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.336	µg/g	5/8/98
Aroclor 1221	ND	0.336	µg/g	5/8/98
Aroclor 1232	ND	0.336	µg/g	5/8/98
Aroclor 1242	ND	0.336	µg/g	5/8/98
Aroclor 1248	ND	0.336	µg/g	5/8/98
Aroclor 1254	3.70	0.336	µg/g	5/8/98
Aroclor 1260	0.963	0.336	µg/g	5/8/98

Total PCB Amount > Reporting Limit 4.66

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-22	NEA ID	AB02200		
MATRIX :	FISH	DATE SAMPLED	4/16/98	TIME:	N/A
DATE RECEIVED.	4/18/98	TIME:	11 00	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98
Aroclor 1221	ND	0.112	µg/g	5/8/98
Aroclor 1232	ND	0.112	µg/g	5/8/98
Aroclor 1242	ND	0.112	µg/g	5/8/98
Aroclor 1248	ND	0.112	µg/g	5/8/98
Aroclor 1254	1.78	0.112	µg/g	5/8/98
Aroclor 1260	0.595	0.112	µg/g	5/8/98

Total PCB Amount > Reporting Limit 2.38

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-23	NEA ID:	AB02201		
MATRIX:	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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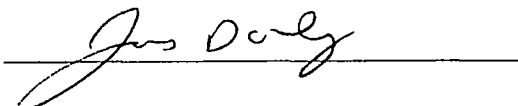
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98
Aroclor 1221	ND	0.112	µg/g	5/8/98
Aroclor 1232	ND	0.112	µg/g	5/8/98
Aroclor 1242	ND	0.112	µg/g	5/8/98
Aroclor 1248	ND	0.112	µg/g	5/8/98
Aroclor 1254	0.807	0.112	µg/g	5/8/98
Aroclor 1260	0.234	0.112	µg/g	5/8/98

Total PCB Amount > Reporting Limit 1.04

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-23D	NEA ID:	AB02432		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

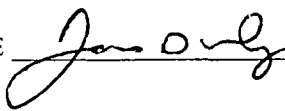
Aroclor 1016	ND	0 112	µg/g	5/14/98
Aroclor 1221	ND	0 112	µg/g	5/14/98
Aroclor 1232	ND	0 112	µg/g	5/14/98
Aroclor 1242	ND	0 112	µg/g	5/14/98
Aroclor 1248	ND	0 112	µg/g	5/14/98
Aroclor 1254	0 677	0 112	µg/g	5/14/98
Aroclor 1260	0 200	0 112	µg/g	5/14/98

Total PCB Amount > Reporting Limit 0 877

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV535-24	NEA ID:	AB02202		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/8/98	
Aroclor 1221	ND	0.112	µg/g	5/8/98	
Aroclor 1232	ND	0.112	µg/g	5/8/98	
Aroclor 1242	ND	0.112	µg/g	5/8/98	
Aroclor 1248	ND	0.112	µg/g	5/8/98	
Aroclor 1254	ND	0.112	µg/g	5/8/98	
Aroclor 1260	ND	0.112	µg/g	5/8/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-01 NEA ID. AB02203
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

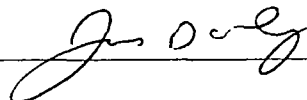
Aroclor 1016	ND	0.112	µg/g	5/8/98	
Aroclor 1221	ND	0.112	µg/g	5/8/98	
Aroclor 1232	ND	0.112	µg/g	5/8/98	
Aroclor 1242	ND	0.112	µg/g	5/8/98	
Aroclor 1248	ND	0.112	µg/g	5/8/98	
Aroclor 1254	0.276	0.112	µg/g	5/8/98	
Aroclor 1260	0.124	0.112	µg/g	5/8/98	

Total PCB Amount > Reporting Limit 0.4

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE



Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-02 NEA ID: AB02204
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98
Aroclor 1221	ND	0.112	µg/g	5/8/98
Aroclor 1232	ND	0.112	µg/g	5/8/98
Aroclor 1242	ND	0.112	µg/g	5/8/98
Aroclor 1248	ND	0.112	µg/g	5/8/98
Aroclor 1254	0.391	0.112	µg/g	5/8/98
Aroclor 1260	0.171	0.112	µg/g	5/8/98

Total PCB Amount > Reporting Limit 0.562

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-03 NEA ID: AB02205
MATRIX : FISH DATE SAMPLED 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT. 4517, SCHLUM
SAMPLED BY: N/A LOCATION. N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98	
Aroclor 1221	ND	0.112	µg/g	5/8/98	
Aroclor 1232	ND	0.112	µg/g	5/8/98	
Aroclor 1242	ND	0.112	µg/g	5/8/98	
Aroclor 1248	ND	0.112	µg/g	5/8/98	
Aroclor 1254	ND	0.112	µg/g	5/8/98	
Aroclor 1260	ND	0.112	µg/g	5/8/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-04 NEA ID: AB02206
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98	
Aroclor 1221	ND	0.112	µg/g	5/8/98	
Aroclor 1232	ND	0.112	µg/g	5/8/98	
Aroclor 1242	ND	0.112	µg/g	5/8/98	
Aroclor 1248	ND	0.112	µg/g	5/8/98	
Aroclor 1254	ND	0.112	µg/g	5/8/98	
Aroclor 1260	ND	0.112	µg/g	5/8/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT. JIM ORR

CUSTOMER ID: SV641-05 NEA ID. AB02207
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98
Aroclor 1221	ND	0.112	µg/g	5/8/98
Aroclor 1232	ND	0.112	µg/g	5/8/98
Aroclor 1242	ND	0.112	µg/g	5/8/98
Aroclor 1248	ND	0.112	µg/g	5/8/98
Aroclor 1254	0.183	0.112	µg/g	5/8/98
Aroclor 1260	0.121	0.112	µg/g	5/8/98

Total PCB Amount > Reporting Limit 0.304

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID.	SV641-05D	NEA ID:	AB02435		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED.	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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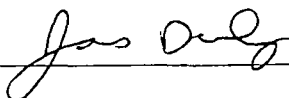
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/8/98
Aroclor 1221	ND	0.112	µg/g	5/8/98
Aroclor 1232	ND	0.112	µg/g	5/8/98
Aroclor 1242	ND	0.112	µg/g	5/8/98
Aroclor 1248	ND	0.112	µg/g	5/8/98
Aroclor 1254	0.163	0.112	µg/g	5/8/98
Aroclor 1260	0.118	0.112	µg/g	5/8/98

Total PCB Amount > Reporting Limit 0.281

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-06 NEA ID. AB02208
MATRIX : FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/8/98	
Aroclor 1221	ND	0.112	µg/g	5/8/98	
Aroclor 1232	ND	0.112	µg/g	5/8/98	
Aroclor 1242	ND	0.112	µg/g	5/8/98	
Aroclor 1248	ND	0.112	µg/g	5/8/98	
Aroclor 1254	ND	0.112	µg/g	5/8/98	
Aroclor 1260	ND	0.112	µg/g	5/8/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.

Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-07 NEA ID: AB02209
MATRIX: FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/9/98	
Aroclor 1221	ND	0.112	µg/g	5/9/98	
Aroclor 1232	ND	0.112	µg/g	5/9/98	
Aroclor 1242	ND	0.112	µg/g	5/9/98	
Aroclor 1248	ND	0.112	µg/g	5/9/98	
Aroclor 1254	ND	0.112	µg/g	5/9/98	
Aroclor 1260	ND	0.112	µg/g	5/9/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-08 NEA ID: AB02210
MATRIX : FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517. SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	ND	0.112	µg/g	5/9/98
Aroclor 1260	ND	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 0

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-09	NEA ID:	AB02211		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT.	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION.	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	ND	0.112	µg/g	5/9/98
Aroclor 1260	ND	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-10 NEA ID. AB02212
MATRIX : FISH DATE SAMPLED: 4/16/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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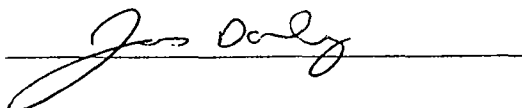
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98	
Aroclor 1221	ND	0.112	µg/g	5/9/98	
Aroclor 1232	ND	0.112	µg/g	5/9/98	
Aroclor 1242	ND	0.112	µg/g	5/9/98	
Aroclor 1248	ND	0.112	µg/g	5/9/98	
Aroclor 1254	ND	0.112	µg/g	5/9/98	
Aroclor 1260	ND	0.112	µg/g	5/9/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-11	NEA ID.	AB02213		
MATRIX :	FISH	DATE SAMPLED.	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME.	11 00	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	ND	0.112	µg/g	5/9/98
Aroclor 1260	ND	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 0

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-12	NEA ID:	AB02214		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	ND	0.112	µg/g	5/9/98
Aroclor 1260	ND	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-13	NEA ID:	AB02215		
MATRIX :	FISH	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	0.148	0.112	µg/g	5/9/98
Aroclor 1260	ND	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 0.148

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-15 NEA ID: AB02217
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98	
Aroclor 1221	ND	0.112	µg/g	5/9/98	
Aroclor 1232	ND	0.112	µg/g	5/9/98	
Aroclor 1242	ND	0.112	µg/g	5/9/98	
Aroclor 1248	ND	0.112	µg/g	5/9/98	
Aroclor 1254	1.10	0.112	µg/g	5/9/98	
Aroclor 1260	0.655	0.112	µg/g	5/9/98	

Total PCB Amount > Reporting Limit 1.75

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT. JIM ORR

CUSTOMER ID:	SV641-16	NEA ID:	AB02218		
MATRIX :	FISH	DATE SAMPLED:	4/17/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/14/98
Aroclor 1221	ND	0.224	µg/g	5/14/98
Aroclor 1232	ND	0.224	µg/g	5/14/98
Aroclor 1242	ND	0.224	µg/g	5/14/98
Aroclor 1248	ND	0.224	µg/g	5/14/98
Aroclor 1254	2.35	0.224	µg/g	5/14/98
Aroclor 1260	0.554	0.224	µg/g	5/14/98

Total PCB Amount > Reporting Limit 2.9

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-17 NEA ID: AB02219
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/9/98	
Aroclor 1221	ND	0.112	µg/g	5/9/98	
Aroclor 1232	ND	0.112	µg/g	5/9/98	
Aroclor 1242	ND	0.112	µg/g	5/9/98	
Aroclor 1248	ND	0.112	µg/g	5/9/98	
Aroclor 1254	0.847	0.112	µg/g	5/9/98	
Aroclor 1260	0.421	0.112	µg/g	5/9/98	
Total PCB Amount > Reporting Limit	1.27				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-18	NEA ID:	AB02220		
MATRIX :	FISH	DATE SAMPLED:	4/17/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/9/98
Aroclor 1221	ND	0.112	µg/g	5/9/98
Aroclor 1232	ND	0.112	µg/g	5/9/98
Aroclor 1242	ND	0.112	µg/g	5/9/98
Aroclor 1248	ND	0.112	µg/g	5/9/98
Aroclor 1254	2.10	0.112	µg/g	5/9/98
Aroclor 1260	0.757	0.112	µg/g	5/9/98

Total PCB Amount > Reporting Limit 2.86

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-19 NEA ID: AB02221
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.224	µg/g	5/9/98
Aroclor 1221	ND	0.224	µg/g	5/9/98
Aroclor 1232	ND	0.224	µg/g	5/9/98
Aroclor 1242	ND	0.224	µg/g	5/9/98
Aroclor 1248	ND	0.224	µg/g	5/9/98
Aroclor 1254	2.19	0.224	µg/g	5/9/98
Aroclor 1260	0.513	0.224	µg/g	5/9/98

Total PCB Amount > Reporting Limit 2.7

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-20 NEA ID: AB02222
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.668	µg/g	5/16/98	
Aroclor 1221	ND	0.668	µg/g	5/16/98	
Aroclor 1232	ND	0.668	µg/g	5/16/98	
Aroclor 1242	ND	0.668	µg/g	5/16/98	
Aroclor 1248	ND	0.668	µg/g	5/16/98	
Aroclor 1254	7.04	0.668	µg/g	5/16/98	
Aroclor 1260	1.33	0.668	µg/g	5/16/98	

Total PCB Amount > Reporting Limit 8.37

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

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5/15/98

ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID:	SV641-21	NEA ID:	AB02223		
MATRIX :	FISH	DATE SAMPLED:	4/17/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.118	µg/g	5/9/98
Aroclor 1221	ND	0.118	µg/g	5/9/98
Aroclor 1232	ND	0.118	µg/g	5/9/98
Aroclor 1242	ND	0.118	µg/g	5/9/98
Aroclor 1248	ND	0.118	µg/g	5/9/98
Aroclor 1254	1.18	0.118	µg/g	5/9/98
Aroclor 1260	ND	0.118	µg/g	5/9/98

Total PCB Amount > Reporting Limit 1.18

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-22 NEA ID: AB02224
MATRIX : FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.118	µg/g	5/10/98	
Aroclor 1221	ND	0.118	µg/g	5/10/98	
Aroclor 1232	ND	0.118	µg/g	5/10/98	
Aroclor 1242	ND	0.118	µg/g	5/10/98	
Aroclor 1248	ND	0.118	µg/g	5/10/98	
Aroclor 1254	ND	0.118	µg/g	5/10/98	
Aroclor 1260	ND	0.118	µg/g	5/10/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-23	NEA ID:	AB02225		
MATRIX :	FISH	DATE SAMPLED:	4/17/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.114	µg/g	5/10/98
Aroclor 1221	ND	0.114	µg/g	5/10/98
Aroclor 1232	ND	0.114	µg/g	5/10/98
Aroclor 1242	ND	0.114	µg/g	5/10/98
Aroclor 1248	ND	0.114	µg/g	5/10/98
Aroclor 1254	ND	0.114	µg/g	5/10/98
Aroclor 1260	ND	0.114	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-24 NEA ID: AB02226
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/10/98
Aroclor 1221	ND	0.117	µg/g	5/10/98
Aroclor 1232	ND	0.117	µg/g	5/10/98
Aroclor 1242	ND	0.117	µg/g	5/10/98
Aroclor 1248	ND	0.117	µg/g	5/10/98
Aroclor 1254	ND	0.117	µg/g	5/10/98
Aroclor 1260	ND	0.117	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc

Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-25 NEA ID: AB02227
MATRIX : FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.114	µg/g	5/10/98
Aroclor 1221	ND	0.114	µg/g	5/10/98
Aroclor 1232	ND	0.114	µg/g	5/10/98
Aroclor 1242	ND	0.114	µg/g	5/10/98
Aroclor 1248	ND	0.114	µg/g	5/10/98
Aroclor 1254	ND	0.114	µg/g	5/10/98
Aroclor 1260	ND	0.114	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV641-26	NEA ID:	AB02363		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.116	µg/g	5/15/98	
Aroclor 1221	ND	0.116	µg/g	5/15/98	
Aroclor 1232	ND	0.116	µg/g	5/15/98	
Aroclor 1242	ND	0.116	µg/g	5/15/98	
Aroclor 1248	ND	0.116	µg/g	5/15/98	
Aroclor 1254	1.39	0.116	µg/g	5/15/98	
Aroclor 1260	0.739	0.116	µg/g	5/15/98	
Total PCB Amount > Reporting Limit	2.13				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV641-27 NEA ID AB02364
MATRIX: FISH DATE SAMPLED: 4/22/98 TIME: N/A
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.346	µg/g	5/18/98	
Aroclor 1221	ND	0.346	µg/g	5/18/98	
Aroclor 1232	ND	0.346	µg/g	5/18/98	
Aroclor 1242	ND	0.346	µg/g	5/18/98	
Aroclor 1248	ND	0.346	µg/g	5/18/98	
Aroclor 1254	3.80	0.346	µg/g	5/18/98	
Aroclor 1260	0.989	0.346	µg/g	5/18/98	

Total PCB Amount > Reporting Limit 4.79

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

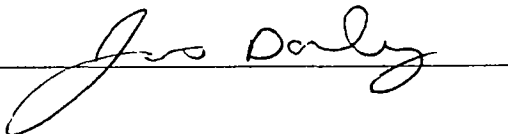
CUSTOMER ID:	SV642-01	NEA ID:	AB02174		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.112	µg/g	5/5/98	
Aroclor 1221	ND	0.112	µg/g	5/5/98	
Aroclor 1232	ND	0.112	µg/g	5/5/98	
Aroclor 1242	ND	0.112	µg/g	5/5/98	
Aroclor 1248	ND	0.112	µg/g	5/5/98	
Aroclor 1254	0.436	0.112	µg/g	5/5/98	
Aroclor 1260	0.184	0.112	µg/g	5/5/98	
Total PCB Amount > Reporting Limit	0.62				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director



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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-02 NEA ID: AB02175
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98	
Aroclor 1221	ND	0.112	µg/g	5/5/98	
Aroclor 1232	ND	0.112	µg/g	5/5/98	
Aroclor 1242	ND	0.112	µg/g	5/5/98	
Aroclor 1248	ND	0.112	µg/g	5/5/98	
Aroclor 1254	0.264	0.112	µg/g	5/5/98	
Aroclor 1260	0.200	0.112	µg/g	5/5/98	

Total PCB Amount > Reporting Limit 0.464

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-03 NEA ID: AB02176
MATRIX : FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	0.300	0.112	µg/g	5/5/98
Aroclor 1260	0.206	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 0.506

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-04 NEA ID: AB02177
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98	
Aroclor 1221	ND	0.112	µg/g	5/5/98	
Aroclor 1232	ND	0.112	µg/g	5/5/98	
Aroclor 1242	ND	0.112	µg/g	5/5/98	
Aroclor 1248	ND	0.112	µg/g	5/5/98	
Aroclor 1254	0.519	0.112	µg/g	5/5/98	
Aroclor 1260	0.293	0.112	µg/g	5/5/98	

Total PCB Amount > Reporting Limit 0.812

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-05	NEA ID:	AB02178		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	0.128	0.112	µg/g	5/5/98
Aroclor 1260	ND	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 0.128

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc
Robert E. Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID: SV642-06 NEA ID: AB02179
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

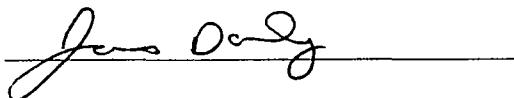
Aroclor 1016	ND	0.112	µg/g	5/5/98	
Aroclor 1221	ND	0.112	µg/g	5/5/98	
Aroclor 1232	ND	0.112	µg/g	5/5/98	
Aroclor 1242	ND	0.112	µg/g	5/5/98	
Aroclor 1248	ND	0.112	µg/g	5/5/98	
Aroclor 1254	ND	0.112	µg/g	5/5/98	
Aroclor 1260	ND	0.112	µg/g	5/5/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE



Northeast Analytical, Inc
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-07 NEA ID. AB02180
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	0.118	0.112	µg/g	5/5/98
Aroclor 1260	ND	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 0.118

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E Wagner Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-08	NEA ID:	AB02181		
MATRIX :	FISH	DATE SAMPLED:	4/15/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.112	µg/g	5/5/98
Aroclor 1221	ND	0.112	µg/g	5/5/98
Aroclor 1232	ND	0.112	µg/g	5/5/98
Aroclor 1242	ND	0.112	µg/g	5/5/98
Aroclor 1248	ND	0.112	µg/g	5/5/98
Aroclor 1254	0.153	0.112	µg/g	5/5/98
Aroclor 1260	ND	0.112	µg/g	5/5/98

Total PCB Amount > Reporting Limit 0.153

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-09 NEA ID: AB02182
MATRIX: FISH DATE SAMPLED: 4/15/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/17/98	
Aroclor 1221	ND	0.117	µg/g	5/17/98	
Aroclor 1232	ND	0.117	µg/g	5/17/98	
Aroclor 1242	ND	0.117	µg/g	5/17/98	
Aroclor 1248	ND	0.117	µg/g	5/17/98	
Aroclor 1254	ND	0.117	µg/g	5/17/98	
Aroclor 1260	ND	0.117	µg/g	5/17/98	

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-10 NEA ID: AB02228
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.118	µg/g	5/10/98
Aroclor 1221	ND	0.118	µg/g	5/10/98
Aroclor 1232	ND	0.118	µg/g	5/10/98
Aroclor 1242	ND	0.118	µg/g	5/10/98
Aroclor 1248	ND	0.118	µg/g	5/10/98
Aroclor 1254	0.144	0.118	µg/g	5/10/98
Aroclor 1260	ND	0.118	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0.144

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-11 NEA ID AB02229
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/10/98
Aroclor 1221	ND	0.116	µg/g	5/10/98
Aroclor 1232	ND	0.116	µg/g	5/10/98
Aroclor 1242	ND	0.116	µg/g	5/10/98
Aroclor 1248	ND	0.116	µg/g	5/10/98
Aroclor 1254	0.992	0.116	µg/g	5/10/98
Aroclor 1260	0.177	0.116	µg/g	5/10/98

Total PCB Amount > Reporting Limit 1.17

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-11D NEA ID: AB02434
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/10/98	
Aroclor 1221	ND	0.116	µg/g	5/10/98	
Aroclor 1232	ND	0.116	µg/g	5/10/98	
Aroclor 1242	ND	0.116	µg/g	5/10/98	
Aroclor 1248	ND	0.116	µg/g	5/10/98	
Aroclor 1254	0.896	0.116	µg/g	5/10/98	
Aroclor 1260	0.346	0.116	µg/g	5/10/98	

Total PCB Amount > Reporting Limit 1.24

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-12 NEA ID. AB02230
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517. SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/10/98
Aroclor 1221	ND	0.117	µg/g	5/10/98
Aroclor 1232	ND	0.117	µg/g	5/10/98
Aroclor 1242	ND	0.117	µg/g	5/10/98
Aroclor 1248	ND	0.117	µg/g	5/10/98
Aroclor 1254	0.667	0.117	µg/g	5/10/98
Aroclor 1260	0.243	0.117	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0.91

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-14 NEA ID. AB02232
MATRIX : FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.115	µg/g	5/10/98	
Aroclor 1221	ND	0.115	µg/g	5/10/98	
Aroclor 1232	ND	0.115	µg/g	5/10/98	
Aroclor 1242	ND	0.115	µg/g	5/10/98	
Aroclor 1248	ND	0.115	µg/g	5/10/98	
Aroclor 1254	1.15	0.115	µg/g	5/10/98	
Aroclor 1260	0.512	0.115	µg/g	5/10/98	
Total PCB Amount > Reporting Limit	1.66				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-17 NEA ID: AB02235
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/10/98
Aroclor 1221	ND	0.117	µg/g	5/10/98
Aroclor 1232	ND	0.117	µg/g	5/10/98
Aroclor 1242	ND	0.117	µg/g	5/10/98
Aroclor 1248	ND	0.117	µg/g	5/10/98
Aroclor 1254	2.39	0.117	µg/g	5/10/98
Aroclor 1260	0.570	0.117	µg/g	5/10/98

Total PCB Amount > Reporting Limit 2.96

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-19 NEA ID: AB02237
MATRIX : FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP # 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.116	µg/g	5/10/98	
Aroclor 1221	ND	0.116	µg/g	5/10/98	
Aroclor 1232	ND	0.116	µg/g	5/10/98	
Aroclor 1242	ND	0.116	µg/g	5/10/98	
Aroclor 1248	ND	0.116	µg/g	5/10/98	
Aroclor 1254	0.120	0.116	µg/g	5/10/98	
Aroclor 1260	ND	0.116	µg/g	5/10/98	
Total PCB Amount > Reporting Limit	0.12				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical Inc.
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ERM- SOUTHEAST, INC.
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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-20 NEA ID: AB02238
MATRIX : FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.118	µg/g	5/10/98	
Aroclor 1221	ND	0.118	µg/g	5/10/98	
Aroclor 1232	ND	0.118	µg/g	5/10/98	
Aroclor 1242	ND	0.118	µg/g	5/10/98	
Aroclor 1248	ND	0.118	µg/g	5/10/98	
Aroclor 1254	0.231	0.118	µg/g	5/10/98	
Aroclor 1260	ND	0.118	µg/g	5/10/98	
Total PCB Amount > Reporting Limit	0.231				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-21 NEA ID: AB02239
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/10/98
Aroclor 1221	ND	0.116	µg/g	5/10/98
Aroclor 1232	ND	0.116	µg/g	5/10/98
Aroclor 1242	ND	0.116	µg/g	5/10/98
Aroclor 1248	ND	0.116	µg/g	5/10/98
Aroclor 1254	0.431	0.116	µg/g	5/10/98
Aroclor 1260	0.125	0.116	µg/g	5/10/98

Total PCB Amount > Reporting Limit 0.556

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-22 NEA ID AB02240
MATRIX: FISH DATE SAMPLED: 4/17/98 TIME: N/A
DATE RECEIVED: 4/18/98 TIME: 11 00 PROJECT: 4517. SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.115	µg/g	5/10/98	
Aroclor 1221	ND	0.115	µg/g	5/10/98	
Aroclor 1232	ND	0.115	µg/g	5/10/98	
Aroclor 1242	ND	0.115	µg/g	5/10/98	
Aroclor 1248	ND	0.115	µg/g	5/10/98	
Aroclor 1254	0.160	0.115	µg/g	5/10/98	
Aroclor 1260	ND	0.115	µg/g	5/10/98	
Total PCB Amount > Reporting Limit	0.16				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-24 NEA ID: AB02357
MATRIX: FISH DATE SAMPLED: 4/22/98 TIME: N/A
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/15/98	
Aroclor 1221	ND	0.117	µg/g	5/15/98	
Aroclor 1232	ND	0.117	µg/g	5/15/98	
Aroclor 1242	ND	0.117	µg/g	5/15/98	
Aroclor 1248	ND	0.117	µg/g	5/15/98	
Aroclor 1254	1.38	0.117	µg/g	5/15/98	
Aroclor 1260	0.417	0.117	µg/g	5/15/98	

Total PCB Amount > Reporting Limit 1.8

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-25	NEA ID:	AB02358		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT	4517. SCHLUM
SAMPLED BY.	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.117	µg/g	5/15/98
Aroclor 1221	ND	0.117	µg/g	5/15/98
Aroclor 1232	ND	0.117	µg/g	5/15/98
Aroclor 1242	ND	0.117	µg/g	5/15/98
Aroclor 1248	ND	0.117	µg/g	5/15/98
Aroclor 1254	0.916	0.117	µg/g	5/15/98
Aroclor 1260	0.411	0.117	µg/g	5/15/98

Total PCB Amount > Reporting Limit 1.33

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-26	NEA ID:	AB02359		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.114	µg/g	5/17/98
Aroclor 1221	ND	0.114	µg/g	5/17/98
Aroclor 1232	ND	0.114	µg/g	5/17/98
Aroclor 1242	ND	0.114	µg/g	5/17/98
Aroclor 1248	ND	0.114	µg/g	5/17/98
Aroclor 1254	1.85	0.114	µg/g	5/17/98
Aroclor 1260	0.546	0.114	µg/g	5/17/98

Total PCB Amount > Reporting Limit 2.4

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-27	NEA ID:	AB02360		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.352	µg/g	5/18/98	
Aroclor 1221	ND	0.352	µg/g	5/18/98	
Aroclor 1232	ND	0.352	µg/g	5/18/98	
Aroclor 1242	ND	0.352	µg/g	5/18/98	
Aroclor 1248	ND	0.352	µg/g	5/18/98	
Aroclor 1254	3.98	0.352	µg/g	5/18/98	
Aroclor 1260	0.725	0.352	µg/g	5/18/98	
Total PCB Amount > Reporting Limit	4.71				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS

5/19/98

ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: SV642-28 NEA ID: AB02361
MATRIX : FISH DATE SAMPLED: 4/22/98 TIME: N/A
DATE RECEIVED: 4/24/98 TIME: 9 30 PROJECT: 4517, SCHLUM
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.232	µg/g	5/15/98	
Aroclor 1221	ND	0.232	µg/g	5/15/98	
Aroclor 1232	ND	0.232	µg/g	5/15/98	
Aroclor 1242	ND	0.232	µg/g	5/15/98	
Aroclor 1248	ND	0.232	µg/g	5/15/98	
Aroclor 1254	1.45	0.232	µg/g	5/15/98	
Aroclor 1260	0.538	0.232	µg/g	5/15/98	

Total PCB Amount > Reporting Limit 1.99

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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ERM- SOUTHEAST, INC.
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV642-29	NEA ID.	AB02362		
MATRIX :	FISH	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517. SCHLUM
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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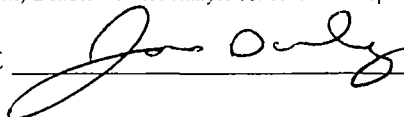
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.116	µg/g	5/15/98
Aroclor 1221	ND	0.116	µg/g	5/15/98
Aroclor 1232	ND	0.116	µg/g	5/15/98
Aroclor 1242	ND	0.116	µg/g	5/15/98
Aroclor 1248	ND	0.116	µg/g	5/15/98
Aroclor 1254	1.10	0.116	µg/g	5/15/98
Aroclor 1260	0.330	0.116	µg/g	5/15/98

Total PCB Amount > Reporting Limit 1.43

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner Laboratory Director

Appendix C
Corbicula Analytical Data Sheets

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: C-0 NEA ID: AB03353
MATRIX : CORBICULA DATE SAMPLED: 5/21/98 TIME: N/A
DATE RECEIVED: 6/5/98 TIME 10 30 PROJECT SCHLUMBERGER/4517
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP # 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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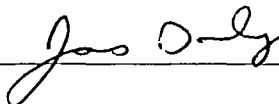
SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.114	µg/g	6/23/98
Aroclor 1221	ND	0.114	µg/g	6/23/98
Aroclor 1232	ND	0.114	µg/g	6/23/98
Aroclor 1242	ND	0.114	µg/g	6/23/98
Aroclor 1248	0.136	0.114	µg/g	6/23/98
Aroclor 1254	ND	0.114	µg/g	6/23/98
Aroclor 1260	ND	0.114	µg/g	6/23/98

Total PCB Amount > Reporting Limit 0.136

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: C-1 NEA ID AB03354
MATRIX : CORBICULA DATE SAMPLED: 5/21/98 TIME: N/A
DATE RECEIVED: 6/5/98 TIME: 10 30 PROJECT: SCHLUMBERGER/4517
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.241	µg/g	6/23/98	
Aroclor 1221	ND	0.241	µg/g	6/23/98	
Aroclor 1232	ND	0.241	µg/g	6/23/98	
Aroclor 1242	ND	0.241	µg/g	6/23/98	
Aroclor 1248	2.14	0.241	µg/g	6/23/98	
Aroclor 1254	ND	0.241	µg/g	6/23/98	
Aroclor 1260	ND	0.241	µg/g	6/23/98	

Total PCB Amount > Reporting Limit 2.14

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	C-2	NEA ID:	AB03355		
MATRIX :	CORBICULA	DATE SAMPLED:	5/21/98	TIME:	N/A
DATE RECEIVED:	6/5/98	TIME:	10:30	PROJECT	SCHLUMBERGER/4517
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO.	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

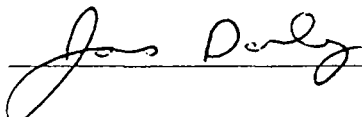
Aroclor 1016	ND	0.119	µg/g	6/23/98
Aroclor 1221	ND	0.119	µg/g	6/23/98
Aroclor 1232	ND	0.119	µg/g	6/23/98
Aroclor 1242	ND	0.119	µg/g	6/23/98
Aroclor 1248	0.175	0.119	µg/g	6/23/98
Aroclor 1254	ND	0.119	µg/g	6/23/98
Aroclor 1260	ND	0.119	µg/g	6/23/98

Total PCB Amount > Reporting Limit 0.175

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID:	C-3	NEA ID	AB03356		
MATRIX :	CORBICULA	DATE SAMPLED:	5/21/98	TIME:	N/A
DATE RECEIVED:	6/5/98	TIME:	10 30	PROJECT	SCHLUMBERGER/4517
SAMPLED BY:	N/A	LOCATION	N/A		
CUSTOMER PO:	N/A	LAB ELAP #.	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.248	µg/g	6/23/98	
Aroclor 1221	ND	0.248	µg/g	6/23/98	
Aroclor 1232	ND	0.248	µg/g	6/23/98	
Aroclor 1242	ND	0.248	µg/g	6/23/98	
Aroclor 1248	2.56	0.248	µg/g	6/23/98	
Aroclor 1254	ND	0.248	µg/g	6/23/98	
Aroclor 1260	ND	0.248	µg/g	6/23/98	
Total PCB Amount > Reporting Limit	2.56				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: C-4 NEA ID AB03357
MATRIX : CORBICULA DATE SAMPLED: 5/21/98 TIME: N/A
DATE RECEIVED: 6/5/98 TIME 10 30 PROJECT SCHLUMBERGER/4517
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.123	µg/g	6/24/98	
Aroclor 1221	ND	0.123	µg/g	6/24/98	
Aroclor 1232	ND	0.123	µg/g	6/24/98	
Aroclor 1242	ND	0.123	µg/g	6/24/98	
Aroclor 1248	0.225	0.123	µg/g	6/24/98	
Aroclor 1254	ND	0.123	µg/g	6/24/98	
Aroclor 1260	ND	0.123	µg/g	6/24/98	
Total PCB Amount > Reporting Limit	0.225				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID:	C-5	NEA ID.	AB03358		
MATRIX :	CORBICULA	DATE SAMPLED:	5/21/98	TIME:	N/A
DATE RECEIVED:	6/5/98	TIME:	10 30	PROJECT	SCHLUMBERGER/4517
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.249	µg/g	6/24/98
Aroclor 1221	ND	0.249	µg/g	6/24/98
Aroclor 1232	ND	0.249	µg/g	6/24/98
Aroclor 1242	ND	0.249	µg/g	6/24/98
Aroclor 1248	1.81	0.249	µg/g	6/24/98
Aroclor 1254	ND	0.249	µg/g	6/24/98
Aroclor 1260	ND	0.249	µg/g	6/24/98

Total PCB Amount > Reporting Limit 1.81

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL ENVIRONMENTAL LAB SERVICES

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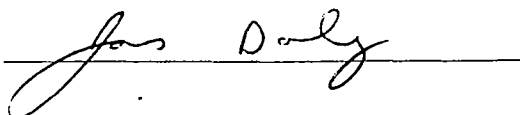
ERM- SOUTHEAST, INC
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT JIM ORR

CUSTOMER ID: C-5(D) NEA ID: AB03359
MATRIX CORBICULA DATE SAMPLED: 5/21/98 TIME: N/A
DATE RECEIVED: 6/5/98 TIME: 10 30 PROJECT: SCHLUMBERGER/4517
SAMPLED BY: N/A LOCATION N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.244	µg/g	6/24/98	
Aroclor 1221	ND	0.244	µg/g	6/24/98	
Aroclor 1232	ND	0.244	µg/g	6/24/98	
Aroclor 1242	ND	0.244	µg/g	6/24/98	
Aroclor 1248	2.88	0.244	µg/g	6/24/98	
Aroclor 1254	ND	0.244	µg/g	6/24/98	
Aroclor 1260	ND	0.244	µg/g	6/24/98	
Total PCB Amount > Reporting Limit	2.88				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID: C-6 NEA ID: AB03360
MATRIX : CORBICULA DATE SAMPLED: 5/21/98 TIME: N/A
DATE RECEIVED: 6/5/98 TIME: 10 30 PROJECT SCHLUMBERGER/4517
SAMPLED BY: N/A LOCATION: N/A
CUSTOMER PO: N/A LAB ELAP #: 11078

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.235	µg/g	6/24/98	
Aroclor 1221	ND	0.235	µg/g	6/24/98	
Aroclor 1232	ND	0.235	µg/g	6/24/98	
Aroclor 1242	ND	0.235	µg/g	6/24/98	
Aroclor 1248	2.10	0.235	µg/g	6/24/98	
Aroclor 1254	ND	0.235	µg/g	6/24/98	
Aroclor 1260	ND	0.235	µg/g	6/24/98	
Total PCB Amount > Reporting Limit	2.1				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

Appendix D
Data Quality

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CERTIFICATE OF ANALYSIS

MAY 6, 1998

ERM SOUTHEAST, INC.

7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

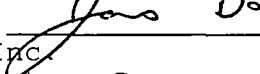
LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY CONTROL SPIKE % RECOVERY

AB02346L	=	0.535 $\mu\text{g/L}$
AMOUNT SPIKED	=	0.495 $\mu\text{g/L}$
PERCENT RECOVERY	=	108%

LABORATORY METHOD BLANK

AB02346B	=	< 0.050 $\mu\text{g/L}$
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Authorized Signature: 
Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

S \CERT98\050698A ERM
REW\JMP

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(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS

MAY 5, 1998

ERM SOUTHEAST, INC.

7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

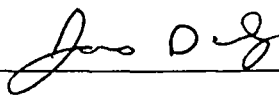
LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY CONTROL SPIKE % RECOVERY

AB02081L	=	0.535 $\mu\text{g/L}$
AMOUNT SPIKED	=	0.495 $\mu\text{g/L}$
PERCENT RECOVERY	=	108%

LABORATORY METHOD BLANK

AB02081B	=	< 0.050 $\mu\text{g/L}$
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Authorized Signature. 
Northeast Analytical, Inc
Robert E. Wagner, Laboratory Director

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CERTIFICATE OF ANALYSIS

MAY 20, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

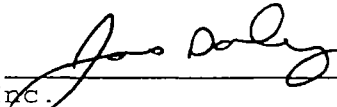
LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY CONTROL SPIKE % RECOVERY

AB02182L	=	9.63 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.3 $\mu\text{g/g}$
PERCENT RECOVERY	=	93.5%

LABORATORY METHOD BLANK

AB02182B	=	< 0.118 $\mu\text{g/g}$
----------	---	-------------------------

Authorized Signature. 
Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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MAY 20, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY CONTROL SPIKE % RECOVERY

AB02440L	=	9.00 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.4 $\mu\text{g/g}$
PERCENT RECOVERY	=	86.5%

LABORATORY METHOD BLANK

AB02440B	=	< 0.118 $\mu\text{g/g}$
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Robert E. Wagner, Laboratory Director

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MAY 8, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL (continued)

LABORATORY CONTROL SPIKE % RECOVERY

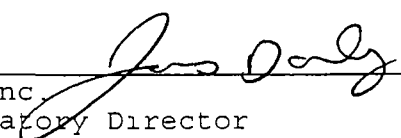
AB02177L	=	11.2 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.91 $\mu\text{g/g}$
PERCENT RECOVERY	=	113%
AB02143L	=	10.0 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.87 $\mu\text{g/g}$
PERCENT RECOVERY	=	101%

LABORATORY METHOD BLANK

AB02177B	=	< 0.112 $\mu\text{g/g}$
AB02143B	=	< 0.112 $\mu\text{g/g}$

LABORATORY DUPLICATE % DIFFERENCE

AB02142 (SV532-11)	=	3.77 $\mu\text{g/g}$
AB02431R (SV532-11D)	=	3.55 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	6.01%
AB02157 (SV535-01)	=	1.33 $\mu\text{g/g}$
AB02433 (SV535-01D)	=	1.24 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	7.00%

Authorized Signature: 
Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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CERTIFICATE OF ANALYSIS

MAY 15, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL (continued)

LABORATORY CONTROL SPIKE % RECOVERY

AB02222L	=	12.1 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.92 $\mu\text{g/g}$
PERCENT RECOVERY	=	122%
AB02228L	=	12.6 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.4 $\mu\text{g/g}$
PERCENT RECOVERY	=	121%

LABORATORY METHOD BLANK

AB02222B	=	< 0.112 $\mu\text{g/g}$
AB02228B	=	< 0.112 $\mu\text{g/g}$

LABORATORY DUPLICATE % DIFFERENCE

AB02229 (SV642-11)	=	1.17 $\mu\text{g/g}$
AB02434 (SV642-11D)	=	1.24 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	5.81%

Authorized Signature: _____

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Robert E. Wagner, Laboratory Director

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CERTIFICATE OF ANALYSIS

MAY 7, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL (continued)

LABORATORY CONTROL SPIKE % RECOVERY


AB02052L	=	10.1 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.88 $\mu\text{g/g}$
PERCENT RECOVERY	=	102%
AB02077L	=	10.6 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.88 $\mu\text{g/g}$
PERCENT RECOVERY	=	107%

LABORATORY METHOD BLANK

AB02052B	=	< 0.112 $\mu\text{g/g}$
AB02077B	=	< 0.112 $\mu\text{g/g}$

LABORATORY DUPLICATE % DIFFERENCE

AB02074 (SV107-10)	=	1.61 $\mu\text{g/g}$
AB02430R (SV107-10D)	=	1.26 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	24.4%
AB02067 (SV107-03)	=	12.5 $\mu\text{g/g}$
AB02429 (SV107-03D)	=	8.61 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	36.8%

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MAY 14, 1998

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LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

AB02196M	=	11.5 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.62 $\mu\text{g/g}$
PERCENT RECOVERY	=	114%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02196K	=	10.9 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.42 $\mu\text{g/g}$
PERCENT RECOVERY	=	111%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

AB02196M	=	114%
AB02196K	=	111%
PERCENT DIFFERENCE	=	2.67%

LABORATORY CONTROL SPIKE % RECOVERY

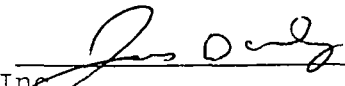
AB02196L	=	11.9 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.4 $\mu\text{g/g}$
PERCENT RECOVERY	=	114%

LABORATORY METHOD BLANK

AB02196BR	=	< 0.112 $\mu\text{g/g}$
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LABORATORY DUPLICATE % DIFFERENCE

AB02207 (SV641-05)	=	0.304 $\mu\text{g/g}$
AB02435 (SV641-05D)	=	0.281 $\mu\text{g/g}$
PERCENT DIFFERENCE	=	7.86%

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CERTIFICATE OF ANALYSIS
MAY 19, 1998

GENERAL ELECTRIC COMPANY

100 WOODLAWN AVENUE
PITTSFIELD, MA 01201
CONTACT: ANDY SILFER

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

AB02354M	=	10.6 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.3 $\mu\text{g/g}$
PERCENT RECOVERY	=	93.7%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02354K	=	11.1 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.4 $\mu\text{g/g}$
PERCENT RECOVERY	=	97.6%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

AB02354M	=	93.7%
AB02354K	=	97.6%
PERCENT DIFFERENCE	=	4.08%

LABORATORY CONTROL SPIKE % RECOVERY

AB02354L	=	8.91 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.4 $\mu\text{g/g}$
PERCENT RECOVERY	=	85.7%

LABORATORY METHOD BLANK

AB02354B	=	< 0.118 $\mu\text{g/g}$
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CERTIFICATE OF ANALYSIS

MAY 20, 1998

ERM SOUTHEAST, INC.
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SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

AB02446M	=	26.3 $\mu\text{g/g}$
AMOUNT SPIKED	=	22.8 $\mu\text{g/g}$
PERCENT RECOVERY	=	115%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02446K	=	24.5 $\mu\text{g/g}$
AMOUNT SPIKED	=	22.6 $\mu\text{g/g}$
PERCENT RECOVERY	=	108%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

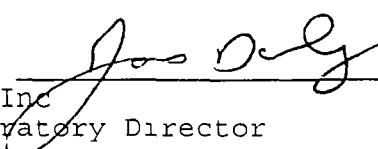
AB02446M	=	115%
AB02446K	=	108%
PERCENT DIFFERENCE	=	6.29%

LABORATORY CONTROL SPIKE % RECOVERY

AB02446L	=	12.0 $\mu\text{g/g}$
AMOUNT SPIKED	=	10.8 $\mu\text{g/g}$
PERCENT RECOVERY	=	111%

LABORATORY METHOD BLANK

AB02446B	=	< 0.118 $\mu\text{g/g}$
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MAY 13, 1998

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SUITE 228
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CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

AB02336M	=	14.2 $\mu\text{g/g}$
AMOUNT SPIKED	=	12.3 $\mu\text{g/g}$
PERCENT RECOVERY	=	113%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02336K	=	13.9 $\mu\text{g/g}$
AMOUNT SPIKED	=	12.2 $\mu\text{g/g}$
PERCENT RECOVERY	=	112%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

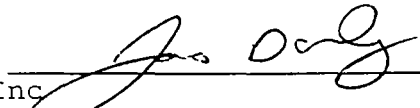
AB02336M	=	113%
AB02336K	=	112%
PERCENT DIFFERENCE	=	0.89%

LABORATORY CONTROL SPIKE % RECOVERY

AB02336L	=	11.8 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.89 $\mu\text{g/g}$
PERCENT RECOVERY	=	119%

LABORATORY METHOD BLANK

AB02336B	=	< 0.112 $\mu\text{g/g}$
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MAY 8, 1998

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LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

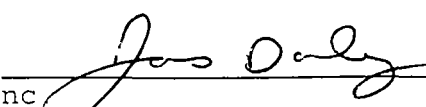
AB02177M	=	10.4 µg/g
AMOUNT SPIKED	=	9.44 µg/g
PERCENT RECOVERY	=	107%
AB02143M	=	11.4 µg/g
AMOUNT SPIKED	=	9.64 µg/g
PERCENT RECOVERY	=	111%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02177K	=	10.8 µg/g
AMOUNT SPIKED	=	9.64 µg/g
PERCENT RECOVERY	=	109%
AB02143K	=	11.3 µg/g
AMOUNT SPIKED	=	9.12 µg/g
PERCENT RECOVERY	=	117%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

AB02177M	=	107%
AB02177K	=	109%
PERCENT DIFFERENCE	=	1.85%
AB02143M	=	111%
AB02143K	=	117%
PERCENT DIFFERENCE	=	5.26%

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MAY 7, 1998

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LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY

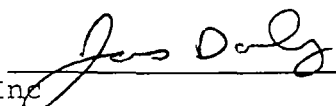
AB02052M	=	11.5 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.80 $\mu\text{g/g}$
PERCENT RECOVERY	=	109%
AB02077M	=	10.1 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.20 $\mu\text{g/g}$
PERCENT RECOVERY	=	103%

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY

AB02052K	=	11.3 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.50 $\mu\text{g/g}$
PERCENT RECOVERY	=	111%
AB02077K	=	10.2 $\mu\text{g/g}$
AMOUNT SPIKED	=	9.53 $\mu\text{g/g}$
PERCENT RECOVERY	=	100%

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY

AB02052M	=	109%
AB02052K	=	111%
PERCENT DIFFERENCE	=	1.82%
AB02077M	=	103%
AB02077K	=	100%
PERCENT DIFFERENCE	=	2.96%

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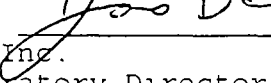
ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY MATRIX SPIKE % RECOVERY			
AB02222M	=	13.8	µg/g
AMOUNT SPIKED	=	9.48	µg/g
PERCENT RECOVERY	=	132%	
AB02228M	=	13.0	µg/g
AMOUNT SPIKED	=	10.1	µg/g
PERCENT RECOVERY	=	129%	

LABORATORY MATRIX SPIKE DUPLICATE % RECOVERY			
AB02222K	=	11.7	µg/g
AMOUNT SPIKED	=	9.34	µg/g
PERCENT RECOVERY	=	111%	
AB02228K	=	13.2	µg/g
AMOUNT SPIKED	=	10.3	µg/g
PERCENT RECOVERY	=	128%	

LABORATORY MATRIX SPIKE DIFFERENCE % RECOVERY			
AB02222M	=	132%	
AB02222K	=	111%	
PERCENT DIFFERENCE	=	17.3%	
AB02228M	=	129%	
AB02228K	=	128%	
PERCENT DIFFERENCE	=	0.78%	

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CERTIFICATE OF ANALYSIS

5/5/98

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	SV106-107-RB	NEA ID	AB02078		
MATRIX :	WATER	DATE SAMPLED:	4/14/98	TIME:	N/A
DATE RECEIVED:	4/16/98	TIME:	9 45	PROJECT:	SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

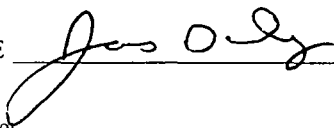
Aroclor 1016	ND	0.0556	µg/L	4/29/98
Aroclor 1221	ND	0.0556	µg/L	4/29/98
Aroclor 1232	ND	0.0556	µg/L	4/29/98
Aroclor 1242	ND	0.0556	µg/L	4/29/98
Aroclor 1248	ND	0.0556	µg/L	4/29/98
Aroclor 1254	ND	0.0556	µg/L	4/29/98
Aroclor 1260	ND	0.0556	µg/L	4/29/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE



Northeast Analytical, Inc
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

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ERM- SOUTHEAST
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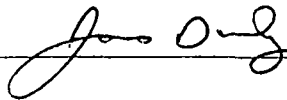
CUSTOMER ID:	RB-02	NEA ID:	AB02149		
MATRIX :	WATER	DATE SAMPLED:	4/15/98	TIME: N/A	
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.050	µg/L	4/29/98	
Aroclor 1221	ND	0.050	µg/L	4/29/98	
Aroclor 1232	ND	0.050	µg/L	4/29/98	
Aroclor 1242	ND	0.050	µg/L	4/29/98	
Aroclor 1248	ND	0.050	µg/L	4/29/98	
Aroclor 1254	ND	0.050	µg/L	4/29/98	
Aroclor 1260	ND	0.050	µg/L	4/29/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE



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Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027

CUSTOMER ID:	RB-03	NEA ID:	AB02150	
MATRIX :	WATER	DATE SAMPLED:	4/15/98	TIME: N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT.
SAMPLED BY:	N/A	LOCATION:	N/A	SCHLUM
CUSTOMER PO:	N/A	LAB ELAP #.	11078	

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0 050	µg/L	4/30/98	
Aroclor 1221	ND	0 050	µg/L	4/30/98	
Aroclor 1232	ND	0 050	µg/L	4/30/98	
Aroclor 1242	ND	0 050	µg/L	4/30/98	
Aroclor 1248	ND	0 050	µg/L	4/30/98	
Aroclor 1254	ND	0 050	µg/L	4/30/98	
Aroclor 1260	ND	0 050	µg/L	4/30/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical, Inc
Robert E Wagner, Laboratory Director

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5/5/98

ERM- SOUTHEAST
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BRENTWOOD, TN 37027
CONTACT: JIM ORR

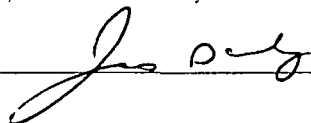
CUSTOMER ID:	RB-04	NEA ID:	AB02194	
MATRIX :	WATER	DATE SAMPLED:	4/16/98	TIME: N/A
DATE RECEIVED:	4/18/98	TIME: 8 00	PROJECT:	SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A	
CUSTOMER PO:	N/A	LAB ELAP #:	11078	

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.054	µg/L	4/30/98	
Aroclor 1221	ND	0.054	µg/L	4/30/98	
Aroclor 1232	ND	0.054	µg/L	4/30/98	
Aroclor 1242	ND	0.054	µg/L	4/30/98	
Aroclor 1248	ND	0.054	µg/L	4/30/98	
Aroclor 1254	ND	0.054	µg/L	4/30/98	
Aroclor 1260	ND	0.054	µg/L	4/30/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE



Northeast Analytical Inc
Robert E. Wagner, Laboratory Director

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CERTIFICATE OF ANALYSIS

5/5/98

ERM- SOUTHEAST
7106 CROSSROADS BLVD.

SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	RB-05	NEA ID:	AB02195		
MATRIX:	WATER	DATE SAMPLED:	4/16/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	8 00	PROJECT:	SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.053	µg/L	4/30/98
Aroclor 1221	ND	0.053	µg/L	4/30/98
Aroclor 1232	ND	0.053	µg/L	4/30/98
Aroclor 1242	ND	0.053	µg/L	4/30/98
Aroclor 1248	ND	0.053	µg/L	4/30/98
Aroclor 1254	ND	0.053	µg/L	4/30/98
Aroclor 1260	ND	0.053	µg/L	4/30/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

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Northeast Analytical Inc

Robert E. Wagner, Laboratory Director

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ERM- SOUTHEAST
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	RB-06	NEA ID:	AB02241		
MATRIX :	WATER	DATE SAMPLED:	4/17/98	TIME:	N/A
DATE RECEIVED:	4/18/98	TIME:	11 00	PROJECT:	SCHLUM
SAMPLED BY:	N/A	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
Aroclor 1016	ND	0.050	µg/L	4/30/98	
Aroclor 1221	ND	0.050	µg/L	4/30/98	
Aroclor 1232	ND	0.050	µg/L	4/30/98	
Aroclor 1242	ND	0.050	µg/L	4/30/98	
Aroclor 1248	ND	0.050	µg/L	4/30/98	
Aroclor 1254	ND	0.050	µg/L	4/30/98	
Aroclor 1260	ND	0.050	µg/L	4/30/98	
Total PCB Amount > Reporting Limit	0				

Note: ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

AUTHORIZED SIGNATURE

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS

5/6/98

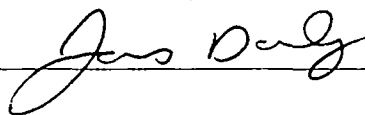
ERM- SOUTHEAST
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	RB-07	NEA ID:	AB02347		
MATRIX :	WATER	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	J ORR	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
SW-846 Method 8082, Polychlorinated Biphenyls					
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Aroclor 1254	ND	0.050	µg/L	4/29/98	
Aroclor 1260	ND	0.050	µg/L	4/29/98	
Total PCB Amount > Reporting Limit	0				

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample.

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ERM- SOUTHEAST
7106 CROSSROADS BLVD
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

CUSTOMER ID:	RB-08	NEA ID:	AB02346		
MATRIX :	WATER	DATE SAMPLED:	4/22/98	TIME:	N/A
DATE RECEIVED:	4/24/98	TIME:	9 30	PROJECT:	4517, SCHLUM
SAMPLED BY:	J ORR	LOCATION:	N/A		
CUSTOMER PO:	N/A	LAB ELAP #:	11078		

PARAMETER PERFORMED	RESULTS	PQL	UNITS	DATE TESTED	FLAGS
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SW-846 Method 8082, Polychlorinated Biphenyls

Aroclor 1016	ND	0.050	µg/L	4/29/98
Aroclor 1221	ND	0.050	µg/L	4/29/98
Aroclor 1232	ND	0.050	µg/L	4/29/98
Aroclor 1242	ND	0.050	µg/L	4/29/98
Aroclor 1248	ND	0.050	µg/L	4/29/98
Aroclor 1254	ND	0.050	µg/L	4/29/98
Aroclor 1260	ND	0.050	µg/L	4/29/98

Total PCB Amount > Reporting Limit 0

Note ND (Not Detected) Denotes analyte not detected at a concentration greater than the PQL

PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

AUTHORIZED SIGNATURE

Northeast Analytical Inc
Robert E. Wagner Laboratory Director

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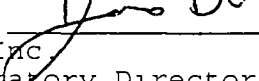
CERTIFICATE OF ANALYSIS

MAY 18, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY DUPLICATE % DIFFERENCE			
AB02201 (SV535-23)	=	1.04	µg/g
AB02432 (SV535-23D)	=	0.877	µg/g
PERCENT DIFFERENCE	=	17.0%	

Authorized Signature 
Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JMP

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ENVIRONMENTAL LAB SERVICES

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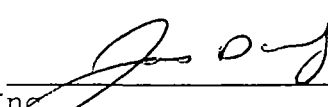
MAY 13, 1998

ERM SOUTHEAST, INC.
7106 CROSSROADS BLVD.
SUITE 228
BRENTWOOD, TN 37027
CONTACT: JIM ORR

LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

LABORATORY DUPLICATE % DIFFERENCE			
AB02060R2 (SV106-09)	=	3.81	µg/g
AB02428R2 (SV106-09D)	=	4.63	µg/g
PERCENT DIFFERENCE	=	19.4%	

LABORATORY METHOD BLANK			
AB02060B	=	< 0.112	µg/g

Authorized Signature: 
Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

S \CERT98\051398B ERM
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